TOWARDS A MODEL FOR INDIGENOUS ARCHITECTURE IN KUWAIT

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DECLARATION

This Thesis is my original work and has been composed solely by myself

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Abstract

Ever since the early 1960s, and following the discovery of oil, there has been a revolution in the culture of Kuwait which has disturbed the concept of the built environment. The decision-making became dominated by people from other countries that did not recognise the heritage and symbolic way of life of Kuwaiti people or regarded these backward and unworthy of respect. In architectural terms, centuries of inherited building patterns that adapted to and celebrated the environment were replaced by buildings constructed for display and not to meet the functional requirements of the natural and social setting.

Concern for this situation is shared by the author and many other architects in Kuwait, who seek to build a living environment in a way that embodies the indigenous knowledge. The intention is therefore to explore the resources of the past and collate these into a discourse to inspire those responsible in shaping the built environment to express this culture and way of life.

The main aim is to preserve what little evidence remains of the past as a document. Very few old buildings are still standing and all urban spaces have been lost. The author has therefore needed to refer to other sources of information. The first part of the thesis builds up a body of knowledge from literature sources, the author's childhood recollections and from lengthy discussions with elderly people once involved in building and crafts and using their own dialect

ACKNOWLEDGEMENT

Many people have contributed to my education throughout the years. To them, I am and will always be greatly indebted. I am particularly grateful to my supervisor Dr. Ujam without his patience, continuous encouragement, and unfailing support this work could not have materialised. I am also deeply indebted to Engineer Sikander Khan for his support in providing me with illustrations, materials and enlightening comments and wish to express my sincere appreciation to Dr. Anwar Al-Naki for his valuable advice throughout the course study and to my sincere secretary Sara Cahal who made the typescript of the whole thesis. I would also like to thank Daniel de Iongh of the Edinburgh College of Art and his assistant Michael Baldock, who together assembled, edited and clarified this thesis up to its first draft. Their patience and attention to the themes of this research are highly appreciated.

Finally, I am very grateful to my wife and family who provided the support I needed and shared the frustration and joys of my studies.

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INTRODUCTION

INTRODUCTION

Introduction:

Kuwait is a country that, over the last fifty years, has lost almost all traces of its architectural heritage, of a tradition that goes back centuries. This heritage was a demonstration of the collective of people's inherited knowledge and behaviour and used architectural forms to transform the harsh environment into conditions for a pleasant way of life. The ultimate goal of the thesis is therefore to build a body of knowledge that collates into a single discourse the values embedded in the culture of Kuwait and that formed the core of its architectural heritage. In order to do this, the research contributes in two ways to the discourse on architecture in Kuwait.

The first contribution of this thesis is to compile a documentary resource that illustrates and describes this heritage. To the author's knowledge there is as yet no such resource – many pieces of the wider theme are scattered over a number of publications (mostly in Arabic) and in documents that are not easily accessible to researchers. Also there are very few original buildings left that testify to the character of Kuwait's tradition architecture. For example, there are perhaps only one or two residential houses left that are over a century old, only a small number of preserved Mosques (and in most cases there is only a minaret remaining). Of the roads and streets that were the very heart of Kuwaiti settlements there are no examples left to learn from. Due to this, the government has sought to encourage pastiche reconstructions of 'historic' streets such as the Seafarers' Village in Kuwait City. While these incorporate several old motifs, they lack the embedded knowledge, functionality, human scale, texture, intentions and authenticity of the streets that have disappeared. Other architects, the author among them, have also sought to reintegrate tradition values in recent building developments and a selection of these case studies will be tested through the findings of the thesis.

The second contribution is to search for the meanings and attributes with which the traditional architecture of Kuwait was imbued. The author believes that the deeper service of architecture is to manifest a link between human aspirations and the physical environment while participating in

the development of the country. Therefore, the author has chosen to conduct an analysis by using a questionnaire that, through the use of open-ended questions, invites people to contribute, in their own expressions and dialect, their feelings and understandings towards the rapid changes that are happening within the urban environment. The idea is not to stop these developments but to elicit people's deeply held cultural values, intentions and their traditions in order to inspire future plans that do not ignore the past.

Aims and Objectives of the Thesis:

- To document and record as much as possible evidence of the valuable source of Kuwait's indigenous knowledge for the future generation. This will form a valuable and clear reference source for future researchers, designers, decision-makers, planners and any people who have an interest in this area.
- To build a discourse that identifies all the elements such as theories, aspects, ideas, forces, norms and traditions, which are relevant to indigenous architecture in Kuwait. This intention here is to compile this into a set of guidelines which allows people's underlying principles to inspire and shape the development of their country.

Research Methodology:

Part One of the thesis opens with an overview of the history and natural and social characteristics of the country of Kuwait, which provides a solid basis upon which the investigations take place and also expresses the scale of what has been lost in the past fifty years. This is followed by a theoretical investigation into the connotations and meanings of architectural components as they are structured in the local dialect.

This study into the language is based on two main sources of information. The first is a review into encyclopaedias and other sources of literature that cover aspects of language in Kuwait. In the second, the author spoke at length with elderly men and women who had been once involved

in crafts and building trades, in order to gain insights into how they translate architectural phenomena into words in order to maintain dialogue among other skilled people.

In order to collate these various sources of knowledge into a coherent unity, the author also includes his recollections of the old city of Kuwait, using drawings that reconstruct typical scenes of traditional courtyards and *souqs* (market-places) and for which no photographic evidence can be found. This therefore constitutes an objective and subjective process for gathering information.

Part Two takes a more theoretical approach. It explores recent writings and explorations into the man-environment paradigm. These insights look into how people and communities transform place into traditions that unite the physical environment with deeply held and intangible human intentions. This helps the author to address many questions that are highly relevant to the aims of the thesis, such as: How do people transform their needs, in the context of the expanse of the desert, into ways of building? How do patterns of proportion and use of materials emerge that not only respond to environmental pressures but to deeply held human desires? To what extent did traditional building settlements represent the surface manifestation of cultural values, as also expressed in language, beliefs and behaviour? How can these underlying forces be elicited?

Part Three brings together the theoretical approach into a methodological approach that establishes how an analysis of the responses can lead the author to an awareness of the values that underlie the responses received. A *Piling Analysis* of the responses focuses on the author's interpretation of the answers give, as reflected on the current and past situation in Kuwait. This, however, is mainly concerned with a direct, surface appraisal of the responses, putting them into a context and exploring many of the more direct associations made by the respondents. The Piling Analysis concludes by reviewing cognitive maps of Kuwait City that the author had asked respondents to provide, and this looks at how they structured the built environment in which they live in their minds.

This is followed by an analysis of the *Categories* (in terms of Objects, Activities and Adjectives) that demonstrates to what extent people focus on tangible, temporal manifestations or their meanings. The final section of the analysis assesses the responses into *Dimensions*, which uncover more hidden aspects that are not so obvious in the earlier explorations.

These many insights are condensed into a discourse that can be used as an implement to evaluate the level to which cultural values are represented in Kuwaiti architecture. This discourse is expected to take the form of a sequence of priorities that reflects the desires of the people and is derived entirely from the background, theoretical and questionnaire studies.

The discourse is applied to two case studies that represent recent instances in which architects have sought to reintegrate the values of Kuwaiti culture in their building programmes. This exercise serves to demonstrate how the discourse might be used by professionals and decision-makers in outlining their project intentions and provides an example of how the research findings can be used in the critique of new developments.

Part Four consists of the conclusions of the thesis and recommendations directed towards all who are involved in or interested in planning and building development in Kuwait.

Thesis Structure and Organisation:

The following is in a brief summary of the various parts and chapters of the thesis:

Part One: The Background of Kuwait:

Chapter One:

The background of Kuwait, its history, geographical and social characteristics, its notable climatic influence and its local material resources, elements, features and so on. Investigation into the past cultural values, socio-economic values, daily life, habits, myths, relationships of elements with each other and experiences that characterised Kuwaiti culture before the oil boom. This chapter also looks at the elements and features of traditional Kuwait architecture.

Chapter Two:

A study into how the dialect and terms used to describe building elements by people who were involved in crafts and building trades before the oil boom.

Part Two: Theory

Chapter Three:

This chapter compiles the theories of well known scholars whose field of interest covers indigenous human development from the simple primitive life to contemporary times, with their highly evolved and often contradictory social and material requirements. It builds up a theoretical framework centred on the notions of man-environment interactions and uses this knowledge to support the author's belief that the perceptions that people have of their built environment are structured around cultural values that transcend and outlast the more superficial pressures that are typical of modern society

This framework is expected to assist the thesis in its aim to preserve these traditions and incorporate them into patterns of architecture that suit the modern society without distancing it from its roots.

Part Three: The Questionnaire

Field work, survey and data analyses are fundamental elements in most social science research. In general, data are necessary when the researcher wishes to draw conclusions from observations about observable phenomena. However, not all phenomena are accessible to direct observation. In order to overcome this and to elicit information relevant to the aims of the thesis, the author conducts an open-ended questionnaire that invites people to reflect on their preferences of, and reactions to, their built environment in their own words. It approached 85 people whom the author knows to have been involved in, or have knowledge of, the physical development of Kuwait prior to the oil boom, and of these 34 individuals returned fully completed sets of answers. In order to

be very clear and simple, the questionnaire was written in Arabic (the mother tongue of the respondents). The questions were organised into groups as follows:

1. Personal data (information),
2. Questions about the city;
3. Questions about the neighbourhood;
4. Questions about the dwelling unit.
5. Questions about cultural value; and finally
6. Questions about social relations.

At the end of the questionnaire respondents were invited to draw a cognitive map representing their idea of the city. The analysis of the questionnaire is divided into two chapters, as follows:

Chapter Four: Piling Analysis

The data collected in the questionnaire are interpreted in light of the existing phenomena to which they refer. The obtained responses established the data upon which the finding of this study is based.

Chapter Five: Further Analysis

This chapter examines the responses received in the survey review in more detail. The first step is classifying the categories by dividing the responses into objects, adjectives and activities. The second step is finding-out the shared dimension between these responses followed by correlations where the study explores in details how these responses correlate to each other. By doing so, it will become possible to find-out about the reasons behind mentioning such issues. Of course, there are literally hundreds of possible correlations between the responses, but according to the main goal of the study and also to focus the survey, this chapter will discuss only a few of these correlations in detail. In addition to these sections, there will be a section on personal profiles and an open talk with the interviewees to express their attitudes towards their built environment.

Chapter Six: Dimensions

Dimensions can be defined as the motivating forces behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory. These motives also are divided into two types, external and internal. External motives consist of various elements such as climate, construction materials and site topography, whereas the internal includes the social needs of interaction and participation. Every building, every emotion, every action is a result of a number of these underlying requirements.

Chapter Seven: Case Studies:

As a conclusion to **Part Three**, the author condenses the information so far gathered throughout the research into a discourse. This discourse is expected to take the form of an expression of the priorities that represent the Kuwaiti culture and can be directly applied to architecture.

The discourse is applied to two recent developments within Kuwait City in which the architect has sought to reintegrate traditional values with today's social requirements. The case studies are also examples of typological social spaces: a private house (Al-Bannai House) and a *souq* (Souq Al-Sharq). The author evaluates these projects by referring to the dimensions and other findings of the thesis. This aids him in uncovering a deep level of interpretation and meaning that understands these buildings in relation to Kuwaiti environmental and social values, validated not only by the necessities of architectural practice but by the enlightened awareness of collective cultural values.

Part Four: Conclusion

In this part the author brings together his findings and presents them as recommendations for the use of architects, planners, decision-makers and all people who have an interest in the field of traditional architecture of Kuwait.

PART ONE

BACKGROUND TO THE THESIS

PART ONE

CHAPTER ONE

BACKGOUND OF KUWAIT

1: Background of Kuwait

Fig 1.01 Al-kout, a humble wooden shelter for fishermen. Painting by (Ayub Hassein)

1.1 Introduction:

The State of Kuwait lies on the Arabian Gulf and is bounded on the north and west by the Republic of Iraq and on the south by the Kingdom of Saudi Arabia. Although an ancient land, its current identity can be traced back to the 17th century with the establishment of Kuwait town in about 1672 by the Amir of the Bani (tribe) Khalid, Barrak bin Ghurair. The modern form of the name Kuwait has been preceded by more archaic forms of Quraih, Qurain, Grane and derives from the Arabic Qurain meaning 'high hill' and Kout or Kut meaning 'cottage' or 'wooden shelter'. Apart from the main land mass, Kuwait also comprises nine small islands: Auhha, Bubyan, Failaka, Kubbbar, Miskan, Qaruh, Umm Al-Maradim, Umm Al-Naml and Warba. Kuwait has undergone rapid change and development since the discovery of oil and is now a prosperous modern state. Its commercial and cultural heart, and the centre of government, is Kuwait City, a modern metropolis reflecting the rapid economic progress of recent years. The following chapter opens by describing some of more significant aspects of Kuwait geography and social life.

The author then discusses the many features that characterise traditional Kuwait in terms of construction and material, the building. The intention is through description and illustration, to familiarise the reader with the indigenous way of life of Kuwait and how this took form in the built environment. This part also includes information on how terms used to express measure were all related to the human figure. Thereafter the author gives a brief review of the modern architecture of Kuwait city, its new materials, and approaches to design and new attitude to measurement. These sections indicate how the role of architecture has drifted from enhancing the holistic attachment between man and the environment a phenomenon the author believes is likely to have serious repercussions on Kuwait culture.

1.2 History of the Area:

The Arabian Gulf is first heard of in an Assyrian tablet mentioning Dilmun, now believed to be Bahrain, in the Lower Sea which was conquered by Sargon (c. 2782 BC). It was then, as it remained until the twentieth century, a mercantile entrepot between India and Mesopotamia and there is evidence that communications existed between India and Southern Iraq before 2600 BC. In 325 Alexander's general, Nearchus, passed through and left a colony of Greek soldiers on Failaka Island; he was told of an island called Nosala, sacred to the sun and never visited, since the unwary who landed there were never seen again. Throughout the ages one encounters a recurring murmur of a scared island, sometimes a Garden of Eden, sometimes an Arabian Delos.

Trajan led his legions to the Gulf in about 116 AD and, in the sixth century, Noshirwan of Persia sailed to Aden. The sailors of the Gulf traded in the ninth century, and later lived on the pickings of Venetian and Genoese dealings with the East.

The island of Hormuz, 'the jewel in the ring of the world' was one of the great trading-stations in the thirteenth and fourteenth centuries. When Marco Polo visited it, it was producing indigo, salt, gold, silver, copper and cinnabar. In the early sixteenth century the Portuguese under Alberque took Hormuz and remained on the Oman coast until Shah Abbas expelled them in 1622. After this the Dutch and the British moved in to secure their last station on Kharg Island, which was destroyed by the Persians. The East India Company was responsible for dealings with the Gulf States until 1858, when the Bombay Government took them over.

Between 1890 and 1921 the first notable ruler in Kuwait was Sheikh Mubarak, who assumed power in 1896 through the assassination of his brothers. At first he faced difficulties from the Turks, and he therefore signed a secret agreement with Britain in 1899 for protection. By this agreement he undertook not to sell, lease or contract with any foreign power except Britain. At

the same time Russia and Germany were trying to secure a port, or calling-station on the Gulf. This of course threatened British interests in the area, especially proposals to make Kuwait a terminus of the Baghdad Railway.

Turkey in turn endeavoured to strengthen its position by attempting to exile Sheikh Mubarak and by occupying Umm Qasar, Bubiyan and Safwan. Britain denounced this as a disturbance of the 'status quo', and appointed a political resident to Kuwait in 1904. In 1913, after two years of negotiations, the United Kingdom and Turkey finally reached agreement about Kuwait but the First World War prevented its ratification. Britain thus declared Kuwait an independent principality under British protection.

Mubarak was succeeded by Sheikh Salim in 1917, bringing a great change in Anglo-Kuwaiti relations. Salim secretly gave active support to the Turks in words, causing the British difficulties in enforcing the blockade they had instituted. Salim also suffered from strained relations with Ibn Sa'ud over tribal matters and boundaries, culminating in a war for which Kuwait paid dearly, and in British arbitration to end the conflict.

Fig 1.02 Ritter's map of Arabia published in 1818 shows the State of Kuwait

Sheikh Salim's reign lasted from 1917 to 1921 and was a critical period for Kuwait in their relations with both Britain and with Saudi Arabia.

Developments in Kuwait during this period illustrate the growing interest and influence of the European Powers in the area as the Ottoman Empire disintegrated (Al-Shamlaan, 1986).

The first and most ancient settlement in Kuwait can be found on the small island of Failaka across the Kuwait Bay. After Alexander the Great ended his campaign in India in the fourth century BC, he established a colony on Failaka Island. He called it Ikaros, and a population of Greeks and foreign tradesmen lived there with the original inhabitants.

Competition among the Egypt, Syria and Petra (Jordan) for sea trade, especially for incense from South Arabia, resulted in the victory of the Egyptian kings, after which the importance of Failaka Island as a support-post for overseas trade was reduced. It was finally abandoned for a period of time until it was inhabited again by the people of Kuwait.

1.3 First Notable Ruler:

Early in Kuwait's history the family Al-Sabah settled in the area and have since been important governance of Kuwait, which, in addition to central government, includes five regional governments. The current head of state is the Amir Sheikh Jaber Al-Sabah and is the thirteenth Amir from the Al-Sabah family. The Amir's role is enshrined in the Constitution of Kuwait and his authority is exercised through a ministerial system headed by the Prime Minister. Kuwait is an hereditary Amirate and the Constitution stipulates that an heir apparent shall be designated within one year of the accession of the Amir thus ensuring a smooth transition of authority. The current Crown Prince is His Highness Sheikh Saad Al-Sabah (Al-Shamlaan, 1986).

1.3.1 Rulers of Kuwait:

Ever since Sabah I assumed leadership in Kuwait in 1756, his descendants have ruled over

Kuwait unchallenged. Some rulers governed Kuwait for as long as 70 years, others spent only a few years as rulers. It was Sheik Mubarak, however, who 'put Kuwait on the world map.' Under his firm rule, Kuwait became a flourishing and attractive place. The success of the pearling industry and the trade with Arabia improved the city's economy and attracted people from all over Najd and the Gulf ports. When Sheik Mubarak died in 1915, Kuwait was in need of a strong and just ruler like him.

After Mubarak, his son Jaber ruled Kuwait for less than two years. When he died in 1917, his brother Salem took over and succeeded in defending the city against the danger from the desert. Sheik Salem died in 1921 and was followed by Sheik Ahmad Al-Jaber who ruled Kuwait for thirty difficult years, including the depression years of the 1930s. When Sheik Ahmad died in 1950, oil from Kuwait was beginning to reach the factories in Europe.

Fig.1.03 Sheikh Mubarak wearing his gold embroidered robe (c1930).

1.3.2 Defending Kuwait:

Kuwait, with its strategic geographical location and its valuable human resources, has always been in danger of being annexed or assimilated by other countries such as Iraq. But the people of Kuwait have always defended their city and kept it free and independent.

When the danger came from desert tribes in 1920, people built a wall around their city to protect it and defended the country heroically at Jahra Fort. In 1928, with the help of a British force,

Kuwait stood another assault from the desert and defended itself. In the 1930s, the government of Iraq talked of annexing Kuwait but failed to realise its dreams (Al-Shamlaan, 1986).

The invasion of Kuwait, by Saddam Hussein, threatened its existence once again in 1990. With the help of the global community however, the Iraqi army was defeated and ejected from Kuwait. The coalition force was under the command of the United States of America and Britain, two staunch friends and allies of Kuwait and Arabia.

'Al-soor' a boundary wall, was built around the city of Kuwait to deter any raids by other tribes. The people of Kuwait volunteered to build this wall, and the materials used were of natural quarried stones and rocks. The soor had many gates which acted as a control for the traffic flow from the desert to the city and *vice versa*. The gates are distinguished by their size, and their heights enabled the guards to monitor any intrusion from a distance. They were closed after sunset making the city a controlled and peaceful place at night (Al-Haji, 1960).

1.4 Climatic Influence:

Fig 1.04 Living in the tent is another face of Kuwait culture practised by Bedouin people who lives outside the city wall near water wells and good grazing grounds.

Located within the influence of the Sahara, Kuwait experiences long hot summers with little rain and short, warm and wetter winters. Dust storms are a feature of the summer period and these can be very violent. Temperature tends to fall within the range of 8C in the winter to 45C in summer, but a low of -6C has been recorded together with a high of 51C. Annual rainfall varies widely from as little as one inch in one year to as much as fourteen inches in the following year. Cold winds and clouded nights are a feature of the winter months, while thunderstorms are experienced in spring. In spite of such harsh climatic conditions, and the absence of natural irrigation, Kuwait still has an important agriculture sector.

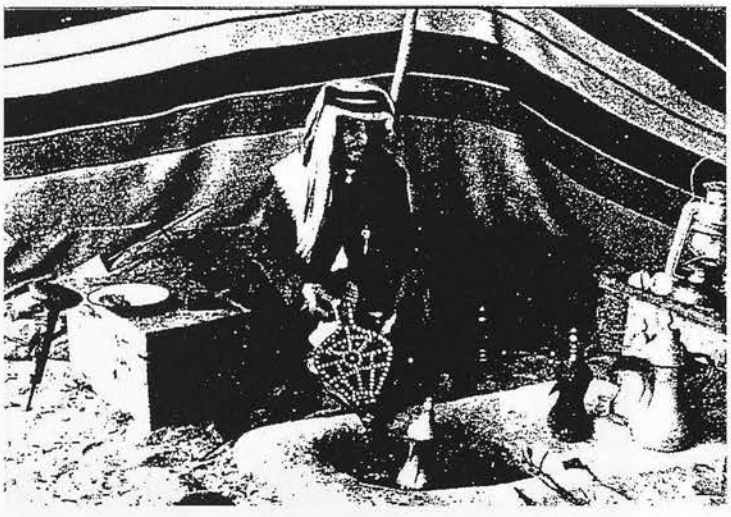


Fig 1.05 Coffee offering is the Bedouin way of showing their best hospitality and kindness.

The climatic conditions are an essential factor in constituting the architecture of any society; their influence is even more predominant in a country like Kuwait that experiences extreme and hostile conditions. Although Kuwait in general has a desert climate, i.e., dry hot in summer and cold with little rain in winter, parts of Kuwait are exposed to varying levels of humidity and dust. These climatic conditions have made it imperative to generate a certain pattern of architecture and structural elements. For example the houses are connected into uniform residential units protecting each other and penetrated by narrow lanes that provide constant shade for the pedestrians. The house openings are narrow and limited. In these houses the development of the 'Leewan' can be found which forms a

transitional stage leading from the courtyard to the inside of the rooms. It is appropriately suited to be used during the daytime as a sitting area or for many other similar uses. It also forms a sort of protection for the rooms from being exposed to direct sunrays The climate has also led to more emphasis being lavished on the roof, which is used as a sleeping area during summer. The roof is divided into areas in a way that ensures privacy of the family members. The house construction is also characterised by thick walls, painted white so as not to absorb the radiant heat of the sun. The existence of the thick wall does not only have a structural function but also serves as an insulation. For the same reason, the typical ceiling construction is composed of several different layers.

Section 1.9 of this chapter, which looks at various components of Kuwait art covers in greater detail the extent to which adaptation to the climate has inspired Kuwait's traditional builders to develop a range of highly specialised features.

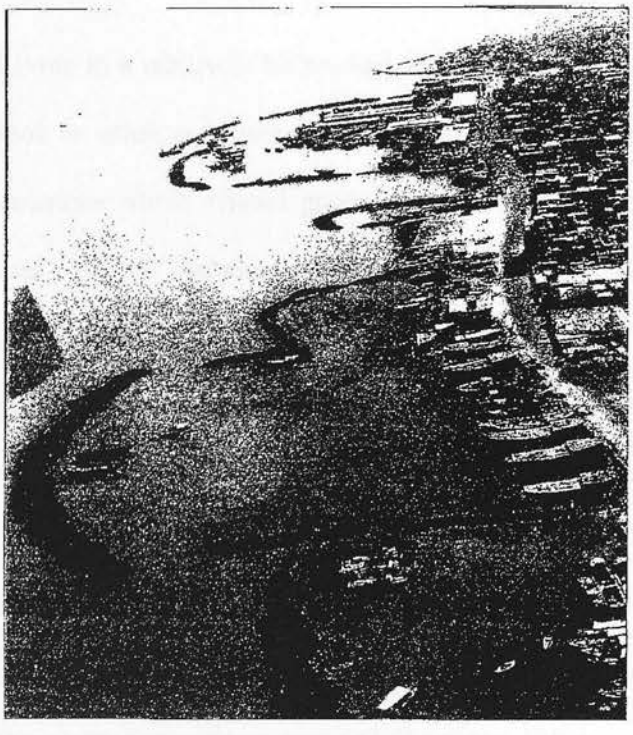


Fig 1.06 Small harbours of the waterfront in Kuwait.

1.5 Topographical Aspects:

Kuwait is a relatively small country of just under 7,000 square miles (about 18,000 square kilometres). It is a mainly flat, sandy desert rising from sea-level in the East to the high ground of Shigaya and Salmi in the West at about 300 metres above sea level.

There are no rivers in Kuwait, which emphasises the importance of the 290 kilometre long coastline. The land fringing the main Arabian Gulf is distinguished by sandy beaches whilst the coast around Kuwait Bay, an indent of the main Gulf is composed largely of mud flats. There is very little tide in this area as the Arabian Gulf is contained along its length by land masses. On the coast can be found some smaller ports, tourist beaches, private developments, small anchorages and, of course, the notoriously important water distillation plants. There are five of these with a combined capacity of 215 million gallons of potable water per day. Demand in 1987 was 130 mgd (mega-galleons per day). Kuwait also possesses some natural subterranean Freshwater reserves at Rawdhatain and Umm al-Aish, but abstraction is deliberately limited in order to conserve the strategic resource.

1.5.1 The Friendly Sea:

Living in a relatively barren and featureless desert by the sea, the people of old Kuwait had to look to other countries to meet their need for supplies. They built ships and sailed them to countries which offered greater resource than Kuwait, such as India, Iraq and Persia (latterly Iran). Kuwait became a small maritime nation of traders and sailors that was renowned in most parts of the Indian Ocean and the Arabian Sea. Every year the stately sailing 'dhows' left the city port bound for southern Africa, the West Coast of India and the East Coast of Africa. They carried cargoes of dates from Shatt al-Arab and returned with cargoes of rice, timber and spices. Many Kuwaitis went pearl-diving in the Gulf waters during the summer, enduring such hardships as only pearl divers know, and maintained local trade among the ports of Arabia and Persia. It was this strong bond with the sea that characterised the people of all Kuwait and filled them with hope and courage (Al-Shamlaan, 1986).

1.5.2 The Struggle for Fresh Water:

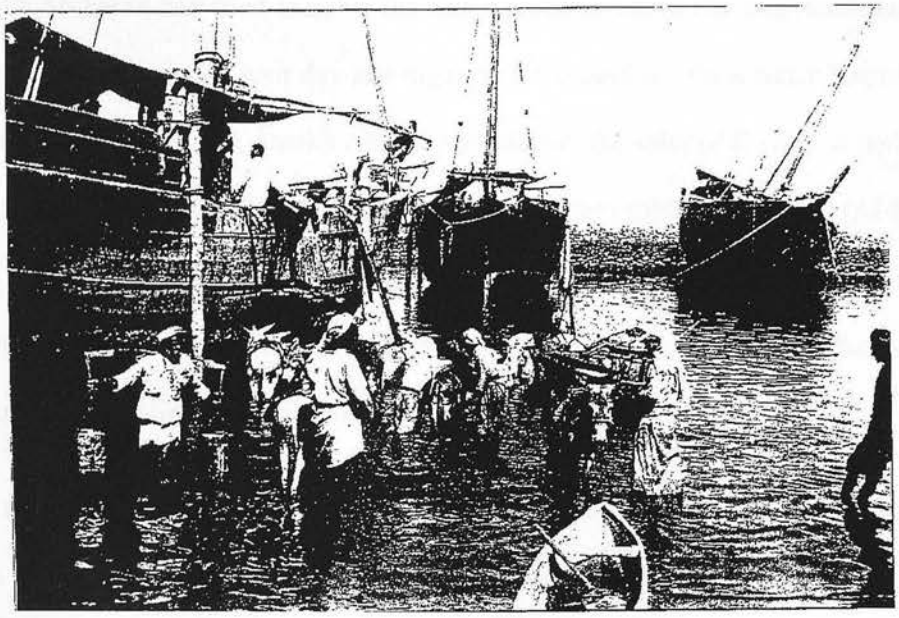


Fig 1.07 A water boom was first invented in the region by the Kuwaiti people unloading fresh water which been brought from Shatt al-Arab (Iraq).

Few people realise today the hardship the people of Kuwait faced in order to obtain freshwater for drinking and cooking. Kuwait's only freshwater source was a few wells located both within and outside of the city. As the population of Kuwait increased, so did the demand for fresh water. Something had to be done to solve the problem of the water shortage in Kuwait.

It was during the reign of Sheikh Mubarak that shipwrights of Kuwait designed a ship solely for the purpose of transporting freshwater from Shatt al-Arab river in Iraq to Kuwait. It was filled with water tanks and called a 'water boom' to distinguish between it and other deep-sea sailing booms. The water boom was a success and many were subsequently built. However, the freshwater shortage in Kuwait persisted. When the wind was calm the water boom could not sail

north. In mid-summer when the fresh water reserve in the city was depleted, people had to wait for days to secure a few gallons.

Sheikh Mubarak had tried to solve the water problem but in the long term, he failed. Lines of men and women would wait day and night on the waterfront for a water boom to appear on the horizon. Finally in 1953, Sheikh Abdullah Al-Salem, the ruler of Kuwait at that time, installed a desalination plant, thus putting an end to the freshwater problem in Kuwait (Al-Shamlaan, 1986). This desalination plant operated through using evaporation to produce fresh water vapour from salt water. More recent and efficient techniques apply pressure to salt water, which effectively removes its capacity to contain soluble salts.

The topography of Kuwait does not offer significant building materials. There are no mountains from which material rock can be quarried nor sufficient reserves of trees for building timber. Coral rocks are taken from the sea front and incorporated in buildings and mud and clay bricks made from the land. Other than this, Kuwait architecture relies heavily on imported materials. This scarcity of materials has made it imperative for the architectural formations to be very simple, and the height of buildings has been limited to two storeys as a maximum limit. The majority of traditional houses have been the one storey type with the utilisation of the roof.

1.6 Social Aspects:

The population of Kuwait is made up of Kuwaiti nationals and a heterogeneous non-Kuwaiti group comprising some 120 different nationalities, both Arab and non-Arab. The indigenous Kuwaiti population has grown steadily through the last decade exceeding 800,000 in 1990. In the same year the non-Kuwaiti population was about 1.3 million. With respect to Kuwaiti nationals, the division between the sexes is slightly in favour of females at 50.4 percent of the population in

1985. As regards age distribution, Kuwaiti exhibits a high young, and therefore dependent, population. Health care is good, Kuwaiti having the highest life expectancy of any Arab country. The predominant religion of Kuwaiti is Islam, but freedom of belief is enshrined in the Constitution (Ministry of Planning, 2000).

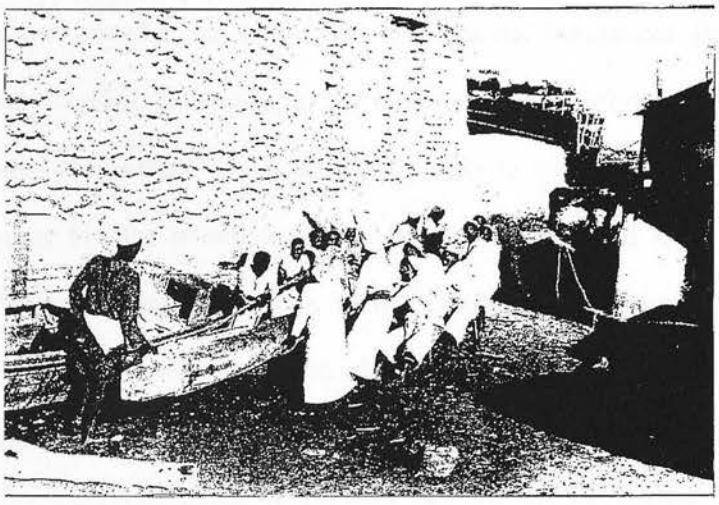


Fig 1.08 Seamen helping each other.

1.6.1 Social Structure:

In formulating a planning process for a certain society, its social structure is an important factor to consider in order to avoid conflicts between the physical outcome of a plan and the inherent social concepts of its users.

The Arabian Gulf societies have their own distinct social structure. It shares many basic concepts with other Islamic societies. However because of the tribal structures and because of the hardships of life, and their remote desert locations, society in Kuwait has become more isolated than other societies, and thus, its social structure has evolved more strongly around its beliefs, i.e. around Islamic teachings.

The Islamic concept of social structure is based on harmony and kinship among members of the society. The rules and regulation that govern conduct were either direct religious laws or derived from it. Thus its enforcement was a religious duty controlled by belief in God. Based on this concept, Islamic society seeks to avoid the polarisation among its classes and can be maintained

without the need for large dominant institutions.

Following the onrush of advancement and progress of the last fifty years, the Gulf States, as in many other Islamic societies have adopted western systems in their development plans. Developments adopted western legal and administrative systems, thinking them to be efficient, progressive and productive and came to regard their inherited social systems as being backwards and as impediments to progress and national enrichment. But during the process of importing and adopting such systems, the importance of people's accumulated world-views and attitudes were overlooked. The individual in today's Kuwait still relates to the traditional beliefs and habits but the planning and social systems imposed from above conform to very different ideologies. Thus, there is an internal conflict between the imposed bureaucratic systems and the traditional structure. The result is what can be seen as inefficiency, inconsistent policies, dissatisfaction and a tendency toward polarisation of the society.

1.6.2 Education in Old Kuwait:

Before 1911 Kuwait had a rudimentary type of teaching. Young boys visited the home of a teacher to learn basic reading and writing. Arithmetic was added to the curriculum later and became popular and helpful to the students. In 1911, Al-Mubarakiya School was established, followed in 1921 by Al-Ahmadiya School. The curriculum in these two schools, however, concentrated mainly on arithmetic and correspondence, in addition to reading and writing.

In 1936, a Council of Education was founded in Kuwait to supervise teaching and a new system of education began. Arab teachers were recruited and the existing curriculum was considerably expanded. In 1937, the first girls' school was established and a special tax was levied by the customs authority to finance education. This led to the establishment of more schools in the years to come, making education free to all young people in Kuwait (Al-Shamlaan, 1986).

1.7 Economic Aspects:

Prior to the commercial development of oil in the 1930's, the Kuwaiti economy was particularly bound up with the sea being principally a trading nation together with fishing and, somewhat sporadically, pearl fishing. The oil industry is overseen by a Ministry of Oil and organised by the Kuwaiti Petroleum Corporation. Oil products are exported through four oil ports capable of handling tankers in excess of 375,000 tons. Kuwait also has an important non-oil based manufacturing industry, though this is still very minor in relation to the oil ports, with three main ports for general trade including extensive facilities for container traffic. In regard to air transport, Kuwaiti International Airport established in 1961 handles a growing passenger and freight traffic, both regional and intercontinental. Kuwait is also well equipped with modern information handling facilities (Hakima, 1983).

1.7.1 The Local Souqs:

Kuwait's traditional markets, or souqs, were an integral part of the old city. Souqs were colourful and diverse, some being highly specialised. They were the meeting place of merchants, men, women and the people of the desert. After a light breakfast and a cup of Arabian coffee, shopkeepers left their homes and headed for the souq. They stayed in their shops buying, selling and receiving friends until noon when they went home for lunch and the mid-day siesta. In the afternoon they returned to their shops where they stayed until sunset. Although the souqs then became deserted, the shops remained well-guarded.

To wander through the souqs was a pleasure for a visitor to the old city. One would enjoy walking through the narrow and covered markets teeming with activity. Here one could find for example, a group of Bedouins from the desert sitting near an arms shop waiting patiently for

their guns to be repaired, hear a group of women bargaining with a textile vendor, or watch an old man waiting calmly for his turn to get a free cup of fresh water from an earthen jar provided as charity by a wealthy citizen. These were but a few of the interesting sights the old souq had to offer before modernity changed the spirit of the souq and hastened the disappearance of most of them (Jamal, 2001).

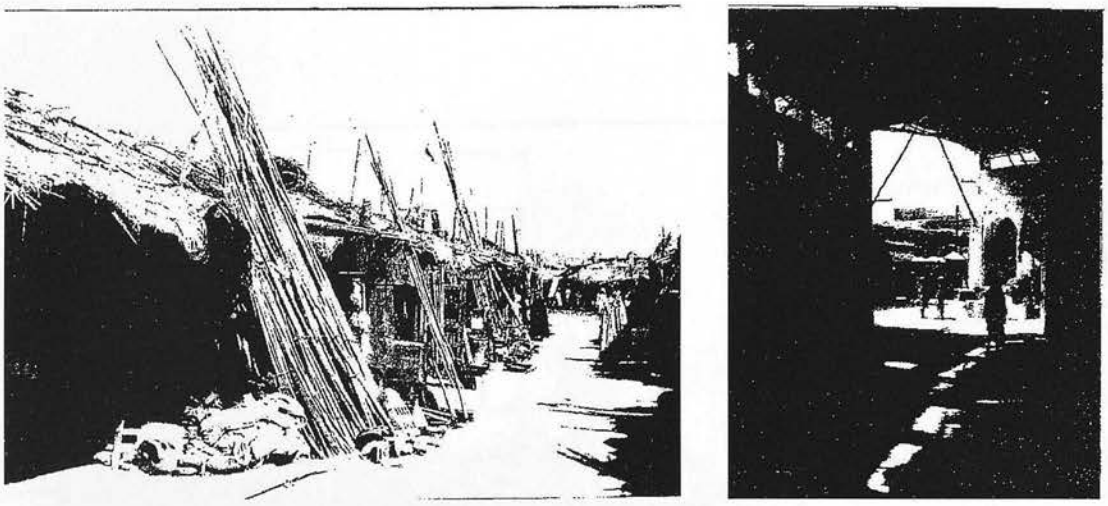


Fig 1.09 Typical old covered of Kuwait offering good shade for the people to enjoy shopping

1.7.2 Materials:

Materials affect the appearance and size of architectural formations. The type and methods of using materials, their availability and resistance to climatic conditions contribute to the process of identifying the shape of the building, its resistance and utilisation.

In Kuwait there are no mountains, and wood is not available. The people were not able to import these in great quantities and so they had to use local materials which were limited to mud as a basic material for mortaring along with the usage of certain types of rocks from sea in some

cases. In most cases mud bricks were made and the walls which bear the roof were made with great thickness. In the roofs certain types of imported wood are used. These were covered by mud in order to present a watertight seal and a convenient platform for using the roof for, for example, sleeping on in the summer nights.

1.7.3 Skill and Craftsmanship:

Not all the men of old Kuwait were sailors who joined ships on their annual voyages to India and Africa. There were a few skilled artisans who were much needed in the old city. Some of these were shipwrights and carpenters; others were the blacksmiths who provided the shipbuilding industry with nails, anchors and the like. The most famous blacksmith in Kuwait in the 1930's was Mr. Hameed Abbas Jeragh who was in charge of the ironwork features in the Diwan Palace. There were also cloak makers, goldsmiths and silversmiths, among many other skilled craftsmen. In the course of collecting information for this thesis, the author interviewed a number of people who had been many skilled craftsmen involved in these crafts. They informed him that each

Fig 1.10 Weaving a basket with palm fronds. Once a common sight in many parts of the old city, craftsmen like this artist are rarely found today.

occupation was located in a separate section of the city.

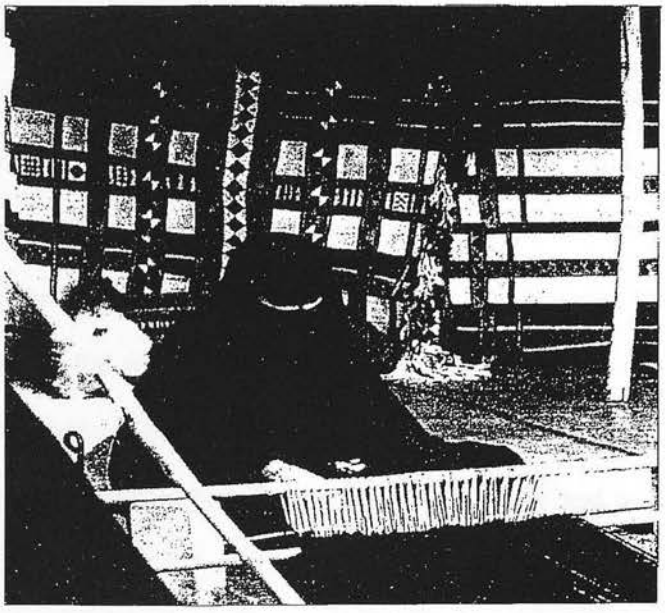


Fig 1.11 A Bedouin woman (Sadu) weaving. Only Bedouin woman do this work to make their living.

It was not uncommon to see a young apprentice learning from his father, or to witness father and son working together in the shipyard. It was only when oil dominated the economy of Kuwait that skilled artisans sadly disappeared.

1.8 Religion and its Effect on Building:

As the Arabian Gulf States started to experience the wealth released by the oil exports, the strategic decision was made to use this new source of revenue for the improvement and development of their countries. The people in charge of such development were convinced that the way to such modern development was to follow other Muslims societies, all of which had already undergone progress in accordance with the western model of development, emphasising the concept of separation between the religion of the society and its physical development. Yet while urban development in the western model is technologically oriented, the traditional model in the Arabian Gulf states had been to seek a unity between the belief structures guided by Islam and the formulation of the built environment, (Herdeg, 1990; El-Kessar, 2001; Ardalan, 1973).

The major conceptual difference between respecting Islam as the basic ideology of development,

or turning to the western model, is that, after the industrial revolution and the ascendant belief in the use of technology as the primary tool towards improving man's conditions, the west was so impressed by its technological advancement and ability, that it started to believe that man is the dominator of earth. People had the ability to construct giant bridges, skyscrapers, to cut mountains, erase forests, build highways over land, and tunnel under the sea, or through mountains. Technology promised many 'wonderful' things. In contrast, according to the Islamic concept, man is only a 'khalifa' on land, which means that he is only a custodian of it, one small part of the whole universe, that only God is the dominator and that all aspects of creation are purposeful. This belief does not rule the 'use' of technology, but recognises it as only a tool of improvement, to be adopted in a selected way and to be carefully integrated into the cultural system.

1.8.1 Old Local Mosques:

The mosque was one of the more prominent features of any 'fireej', or quarter in the old Islamic city. The entire male population assembled there five times daily for prayers. A mosque was also a resting place for a traveller or a poor man in need of shelter for a short time.

The earliest mosques in Kuwait were built of locally available materials and their simple and efficient design reflected the values of the communities they served. However, new architectural ideas from Persia and Iraq influenced the later designs of mosques in Kuwait. The once humble minaret of these early mosques was replaced by a tall one which rose majestically above its surroundings.

The blessings of these mosques continue, for had it not been for their survival, young Kuwaitis who live in a city that has otherwise changed beyond recognition, would not be able to locate

their 'fireej' or know where their parent's houses once stood.

Despite the fact that Kuwait has no characteristic environment different from the Arabian Peninsula, undoubtedly it has its own local environment which should be defined. This local environment contributed to the development of its indigenous architecture in Kuwait and gave it a special character.

Kuwait brings together Desert and Sea environments. Both make a continued surface heading to the horizon with curved gently undulating lines. Sand is the dominant feature of the earth and there are therefore no sharp shapes. The entire topography could be called 'soft'.

Fig 1.12 This mosque in old Kuwait is unique among the mosques of the old city. Its minaret is built over the entrance outside the mosque building and shows the important of the outside seats for elderly people to set and chat.

The tent is the first typical home in the Arabian Desert. The tent reflects these soft lines and became a part of the surrounding environment. But the tent is a shelter, not a house and the Kuwaiti society, despite its roots in the nomadic life, has experienced the urban life for several centuries. During this long evolution of fixed settlements it evolved a permanent building typology that reflects the surrounding nature and

does not contradict its characteristics (Norberg-Schulz, 1984). As a result the skyline of the traditional city became merged into the horizon line, where the sky meets the desert.

1.9 Elements and Features of traditional Kuwaiti Houses:

The architecture in old Kuwait is characterised by its success in "transforming the local values and way of life into architectural terms" as Abdelsalam Shuwait a contemporary architect in Kuwait said in discussion with the author (2002). The Kuwaiti master builder, known locally as 'Ustad', drew no plans on paper; he figured the proportions and made the plan in his mind. His success, however, in using traditional techniques with locally available materials such as mud, gypsum, coral and mangrove timber, is all too evident.

Kuwaiti architecture is an integral part of Islamic architecture, characterised by many special elements. The elements of indigenous architecture differ from one country to another according to atmospheric, economic and social conditions, the materials available and manpower. These differences add to the beauty and diversity of Islamic architecture and indicate the relationships of its inhabitants.

The traditional buildings of Kuwait were heavily influenced by the country's atmospheric and economic conditions. Its society learned ways to make use of available and easy to obtain materials, not only to satisfy the immediate physiological needs for shelter and to maintain social patterns and behaviours enjoined by Islamic tradition, but to create elements and buildings of beauty and harmony. By doing so, architecture was transformed into a celebration of the benefits afforded by the environment and, as significantly, of the possibilities inherent in human craft and knowledge.

The construction of the residential quarters of the Kuwait City was carried out by the Kuwaiti homeowners themselves. Traditionally the 'Ustad' supervised the building and the builders and the owner provided the material. Kuwait City was spontaneous and simple it used to be called 'Deera'. Within the city there were three districts:

- 'Sharq': East, where the sun rises.
- 'Qibla': West, where the sun sets.
- 'Wosta': which lies between them.

1.9.1 House Design and Location:

House design and location reflected the unity that existed in the Kuwaiti Society. In the old times, the poor and the rich were equal before the law in their rights and duties, be it their secular or religious duties therefore people are equal before the law. Islam does not make a distinction between the rich and the poor as practised by the Prophet Mohammed (pbuh) upon God's orders for reason of discipline, to correct only the wrong doers in the society, and therefore protect it from social corruption. The Prophet said His words when a woman from the tribe of Bani Makhzoom committed theft and the people of Qurnaish took interest in the matter and asked Osama Bin Zaid to lighten the punishment, which was to amputate the hand. As a result the Prophet said "The people before you have strayed", because it was the custom that when a nobleman stole he was left unpunished but a poor man would be severely punished. By God if Fatima the daughter of Mohammed stole, I, Mohammed would amputate her hand myself (al-Buchari, 1986). As for the religious rights, all people worship without distinction, rich and poor, black and white sit side by side. Yet the prophet said "listen and obey even if your leader is an Abyssinian slave and his head is like a raisin" meaning that his hair is very curly and he has a

very dark skin. This understanding erases all feelings of superiority of status or race among people. The only difference was that the houses of the rich were large and had more than one courtyard and normally more than one door.

A traditional house in old Kuwait was always built around a courtyard where a brackish water well or a freshwater cistern stood. In the daytime, there would be plenty of sunshine throughout the house. Invariably, a few stairs led to the roof, a much-preferred place for sleeping during the hot summer nights. Usually, there was a room on the roof used to store mattresses in or sometimes for napping. A small bath was usually located beside that room. Close to the entrance stood the 'diwaniya', or men's meeting place, with its private entrance and coffee-hearth in the centre. It was there that the men of the house would entertain their guests.

In instances where houses were abutted directly onto each other, the builders created 'al-musaqqaf' a short passage offering access to the annexed house. Under this there was a passage where people sit and chat, it also eliminates thermal exchange between the courtyard and the outside (Al-Saeedan, 1993).

In the houses there were wells 'jeleeb' for supplying underground water and cisterns 'birka' to store water in. The houses of the rich were divided into a number of courtyards, 'hoash'. Each served a certain range of purposes:

- One courtyard was a relatively public space, used to include the diwanya for male guests. This consisted of a large room annexed to the ancillary buildings needed to accommodate the servants or for other purposes.

- An other 'hoash' courtyard was specified for the family and the female members 'hoash al-hareem' including a number of 'hijra'' rooms and 'mokhtala' bathrooms.

- A third courtyard, 'hoash al-matbakh', was used as a kitchen. It included storage rooms for fuel and storerooms for different kinds of food.

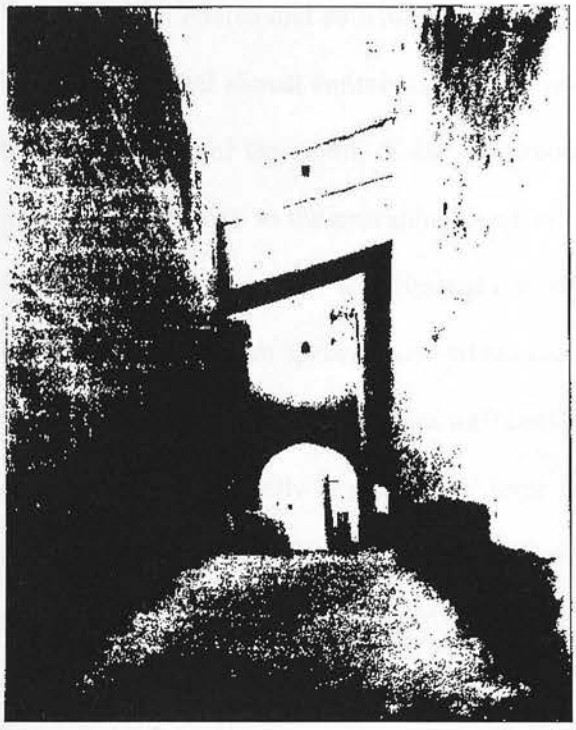
- There could also be a courtyard for animals such as goats, cows and horses.

- Other courtyards could be dedicated to servants or for the activities of the house's owner.

In most cases, however there would only be one courtyard. The houses occupied by the majority of Kuwaitis consisted of one vast courtyard surrounded by many rooms and a hallway 'dahleez' that extended to the outside door. The hallway secured privacy to the family by separating the house from the street. In a response to the harsh climactic conditions the courtyard ventilated the house throughout with cooling breezes at night and, with the wind catchers (see section 1.9.3), providing the house with a reliable and effective natural air conditioning, (Al-Mutawa, 1994).

1.9.2 'Al-Sabaat' the Archway:

Houses expand naturally in accordance with human needs. Looked at from above, the houses of the traditional Islamic city, both large and small, were linked to each other to form a continuous urban fabric (Herdeg 1990). This also limited any further expansion within the residential neighbourhood. In cases when a person owned two houses across an alleyway, it was possible to form a bridge between their upper storeys, containing a room or an access corridor. Al-sabaat could be used to define the entrance to an alley, as a form of gateway, and offered a place of shade where children could play.



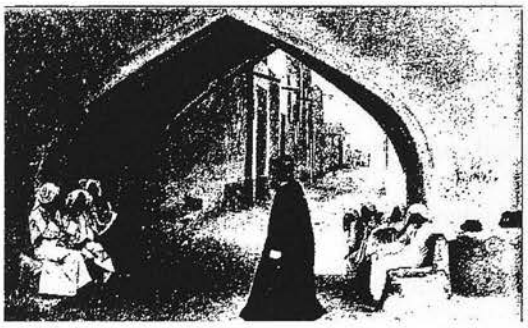


Fig 1.13 The 'sabaat' or archway is one of the indigenous features of architecture in old Kuwait used to connect the houses together, and create a gate for the neighbourhood as well.

1.9.3 'Badgeers', Wind Catchers:

Kuwaiti houses also had the 'badgeer' (wind catcher), which was a natural air conditioner. Not one Kuwaiti house was without it.

Elements like badgeers are essentially practical devices; therefore they were built in many forms. A great deal of ingenuity was expended in providing them and the ability of the householder to ventilate his rooms depended upon the orientation of the house and the extent to which its walls projected up into the main air-stream.

The conventional badgeer was a flue perhaps 500 by 150-200mm in section, which was built into the wall and rose to the highest point of the parapet where it was capped with a sharply angled scoop so as to deflect the air stream down into the building. To some extent the air flow was helped by convection, for as the air descended into cooler levels and absorbed some moisture, it

was in its turn cooled and so tended to sink, but this effect was minimal. The efficiency of the badgeer depended almost entirely on the downward thrust of air caused by the pressure exerted by the wide area of the mouth of the wind scoop. The most efficient badgeers were those built into walls transverse to the prevailing wind, whose broad openings presented gaping mouths to the north-west. The cool air was directed into voids in the basement. This air was not blown into the house but the room spaces above where cooled by being near it. Unfortunately some houses were not built so coherently that one wall could accommodate shafts to ventilate the cellars and also emerge conveniently at roof level. Some badgeers have only narrow slots facing into the prevailing winds and others have their openings in street façade walls. Sometimes the channel is carried down beneath the basement floor.

1.9.4 House Materials:

Building materials were taken from materials available in nature i.e. sea rocks, mud, limestone and gypsum. Wood was imported from Africa and India such as 'chandal' trunk and 'bascheel' bamboo from Mombassa (Al-Mutawa, 1994).

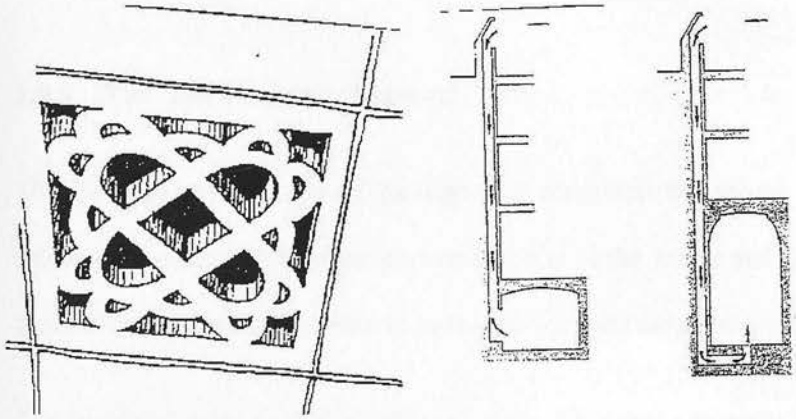


Fig 1.14 Badgeers: Roof scoops and outlets for the outside wall and floor and sections.

Walls were built of rocks and mud, and were decorated internally with white gypsum. Ceilings consisted of rows of 'chandal' mangrove tree-trunks, 'bascheel' bamboo and 'mangour' straw mats covered with a 300mm or 400mm layer of mud. The mud was not only readily available and easy to shape, maintain and repair, it also served as an excellent thermal insulator being of a high density. 'Rama'ad' - ashes were applied to the roof before the rainy season for water proofing. Only the rich people could afford to use gypsum on their walls as a protection from the rain. The floor was covered with mud, then with 'ajar', clay terracotta brick tiles imported from Iraq (Al-Kurs, 1999).

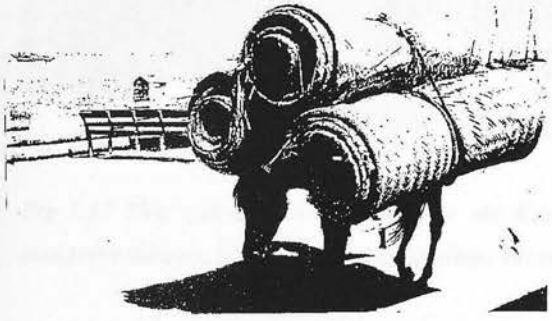


Fig 1.15 'Hasser' used for constructing roofs in the old houses in Kuwait.

Fig 1.16 Coral rocks from the waterfront used for building.

1.9.5 The 'Leewan' and 'Dahleez'

The 'leewan' was a type of passage that separated the rooms from the courtyard. It was a transitional place between the enclosed rooms of the house and the open courtyard, was always shaded, and allowed the rooms to open to a cool and informal space.

The 'dahleez' was another transitional space. This was a foyer in front of the house door with an angle wall at its end, prevented the wind carrying dust from entering directly to the house. It also

eliminated thermal exchange between the courtyard and the outside. Moreover, it insulated the house from the outside sounds and noises, and secured privacy when opening the door.

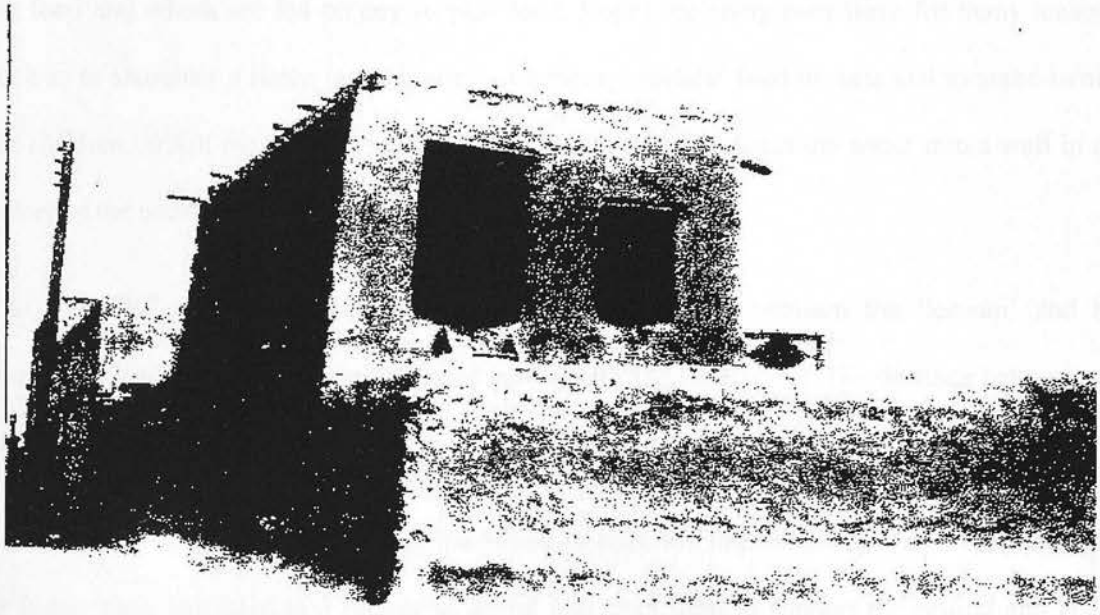


Fig 1.17 This typical two-story house in old Kuwait, made of mud and coral rocks and roofed with mangrove timbers, is not only easy to construct but also quite durable.

1.9.6 Timber Elements:

The people of Kuwait were connected by the sea to the outer world upon which they depended on for many essential resources. Imported materials were very highly valued, as they symbolised this life line to other countries, through which not only could Kuwaitis survive but also create a nation based upon trade and travel. The most evident imported building material was timber, as Kuwait had no harvestable woodlands. The use of timber in buildings had a elevated significance; in celebration of which much of the decoration was lavished upon these elements.

Chandels were poles that projected outwards from the outside and courtyard walls of the house.

The poles that supported the roof, rather than being cut to length, were left with this extra length projecting from the wall-plane, allowing the poles to be recycled if a new house has to be built. These benefit the household in several ways. They provide a roost for pigeons, which are raised for food and which are fed on any surplus food. Ropes are slung over them for many reasons, such as to slaughter a sheep in the house, for hanging 'melala' food baskets and to make swings for children. When the rains come, a sail was tied to these to direct the water into a well in the center of the courtyard.

The 'mondah', a pillar supporting the ceiling, was located between the 'leewan' and the courtyard. It was made of decorated wood on the top called muqarnas. The distance between one pillar and the other was three to four meters.

Most of these columns were made of hardwood or redwood imported from Indonesia, Malaysia or India. They extended to 5 metres in height and were used to support the ceiling and heavy lintels.

The wood was steeped in a special and very dark oil from cotton seed called 'hot oil'. This was also used to protect boats from the sea water. When the timbers had become saturated in this oil it became waterproofed and would not be harmed by the natural elements.

1.9.7 Other Miscellaneous Elements:

The 'dirwa' was a one and a half-metre high parapet that ran around the roof. It provided security and privacy to the roof. As the parapets represented the junction between the earth and the sky in traditional Kuwait, they were often the most decorated and individuated elements of the house exterior.

The 'sandara', was a raised mezzanine floor below the ceiling of the father's room where valuables, books etc. were stored. A wooden staircase led to it, and it was used to store foodstuff or for sleeping in winter.

The 'birka ground water tank which was located in the middle of the courtyard, was used to store fresh water. If water was salty it was only used for washing and cleaning.

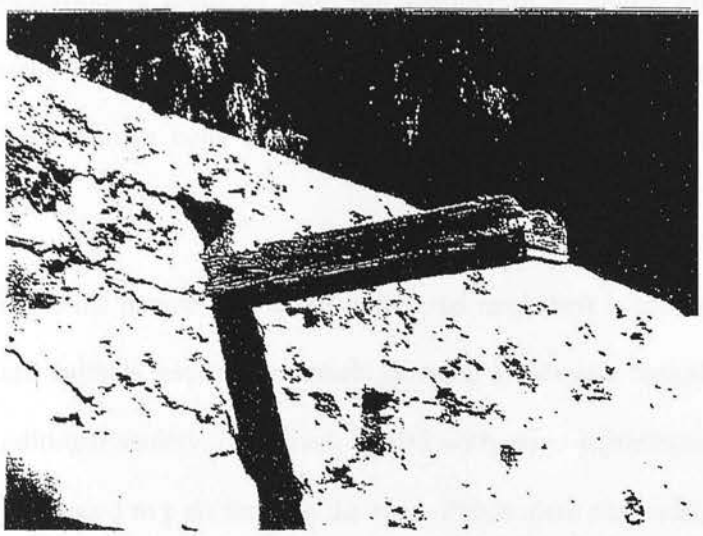


Fig 1.18 A sophisticated type of 'mirzam' made out of wood.

Manghor - is woodwork usually used for doors and windows.

The 'mastaba' or 'dacha', was an outdoor bench made of stone and mud near the house door. This was used by the men of the house for sitting. From here they could maintain their social acquaintance with other people who lived in the same street – most usually of the same original tribe, extended family or artisanal guild.

The 'mirzam' was made of wood or iron to get rid of rain that accumulated on the roofs. A folk song still sung by Kuwaiti children, goes "O rain fall our house is solid and our mirzam is made of iron". This shows the Kuwaiti love of rain, which brings life to their environment, refills their precious freshwater reserves, and also the joy inherent in being able to protect the domestic property from environmental problems.

The 'roshnah' is a niche used to store ornaments (Al-Kurs 1999).

1.10 Human Scale in Old Kuwait

Before the advent of the metric system, architecture around the world was developed from measurements relating to the human body – usually that of the builder. The importance of this is in contrast to imposing abstract or perfect universal measurements, "anthropomorphic proportioning methods seek not abstract or symbolic ratios, but functional ones. They are predicated on the theory that forms and spaces in architecture are either containers or extensions of the human body and should, therefore, be determined by its dimensions" (Ching, 1979, p.324).

Where the people of Kuwait in the past used their human measure in building works, they also used animals, especially camels carrying goods as a measuring unit for paths and roads. In the traditional society, the camel, loaded with cargo represented the highest and widest single thing that needed to pass through the road. Plants were also used, palm trees and their sizes providing the dimensions of farming lands, such that one would describe the land for sale as being about twenty palm trees in area, or it is about five palm trees in width, for the palm tree needs five metres in diameter to grow.

Of the human elements used in measuring are the arm 'thiraa', the foot 'qadam', span of the hand 'shibir', human height 'qama', or shoulder 'Katif'. One would say that the stairs should be of two shoulders in width, the height of each step should be the span of the hand, and the step itself be one foot deep and so on, which approximates to those used in steps nowadays.

Other materials that restrict man in building works are the natural materials, which impose measurements by virtue of their inherent qualities. For example, the length of wood is hard to control, wood has a fixed maximum, so the width of the rooms in the past, without the use of wooden pillars obeyed natural limitations, and the height of the ceilings would not extend higher than that of the pillars used. All of these examples show the extent to which the Kuwaiti

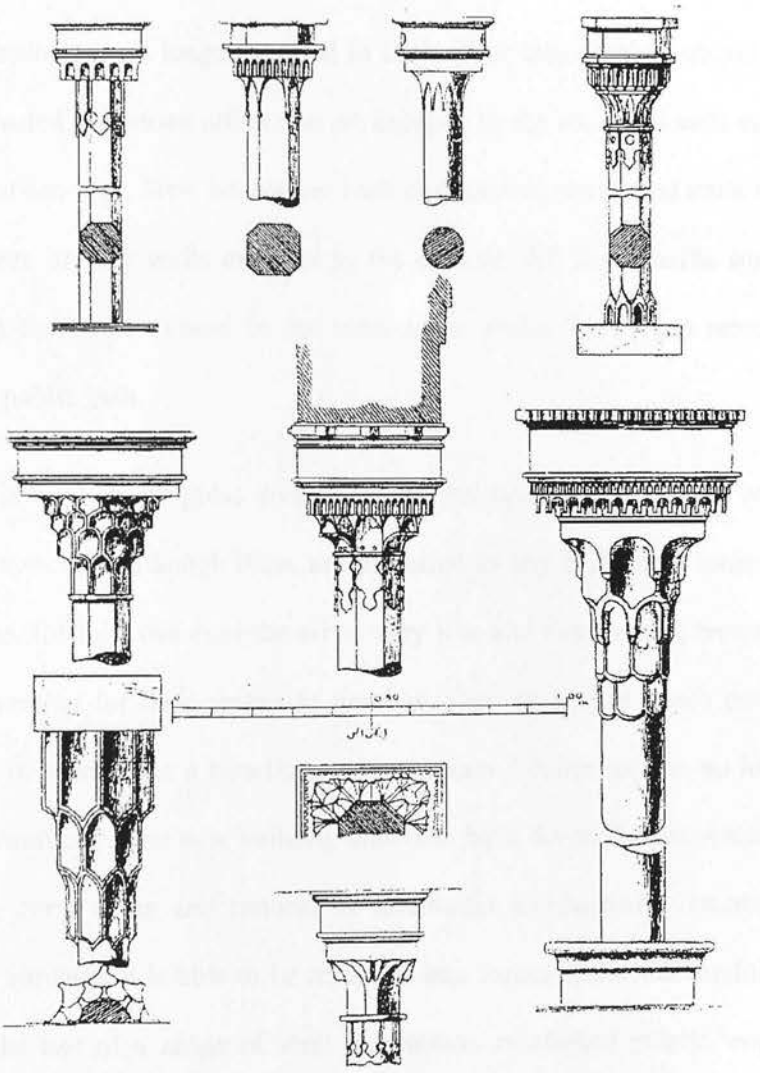


Fig. 1.19 Different types of Muqarnas Capital

individual in the past was inspired by nature and used natural resources in forming the private spaces of the house and even in shaping the urban fabric as a whole.

1.11 Kuwait Today

The boom in oil in the last five decades has seen radical change, covering every aspect of architecture and building. This section provides an overview of these as they are related to the previous two sections.

Many new houses are no longer abutted to each other into neighbourhood units, leaving only narrow and shaded pedestrian alleys that are enjoyed by the local residents as safe places to sit or where children can play. New houses are built as detached, individual units in their own plots of land, with three or four walls exposed to the outside. All the benefits such as 'sabaats' (see section 1.9.2) that once existed in the semi-public realm have been relocated to the private garden or the public path.

Kuwait city is a place of great wealth. Every household is equipped with mechanical air-conditioning systems. Although these are preferred to any traditional means for modifying the indoor climate, for they can cool the air to very low and comfortable temperatures, and do not rely on the weather for their ability to function, they no longer attach people to their natural environment, by using it as a beneficent phenomenon. 'Badgeers' are no longer an identifiable feature of Kuwait city. The new building materials have diversified enormously from the muds, woven reeds, coral rocks and timbers of traditional architecture. Concrete is widespread in construction, although it is able to be moulded into forms that evoke traditional features. Most buildings make use of a range of steel aluminium, reinforced plastic, engineering brick and aluminium materials. As a result, architecture has managed to break free of the natural

limitations once imposed upon its materials but which as a positive force, had inspired the distinctive architecture of old Kuwait.

Simultaneously, the notion of measurement no longer makes reference to the human anatomy nor any other natural phenomenon. In line with much of the international community (but not the USA), Kuwait has adopted the universal 'language' of the metre and the millimetre, expressions that have basis in the wish to harmonise measurements among all trades, and crafts, but no root in local cultural characteristics.

The result is an architecture that looks far, to a world beyond Kuwait, and that subjects itself to

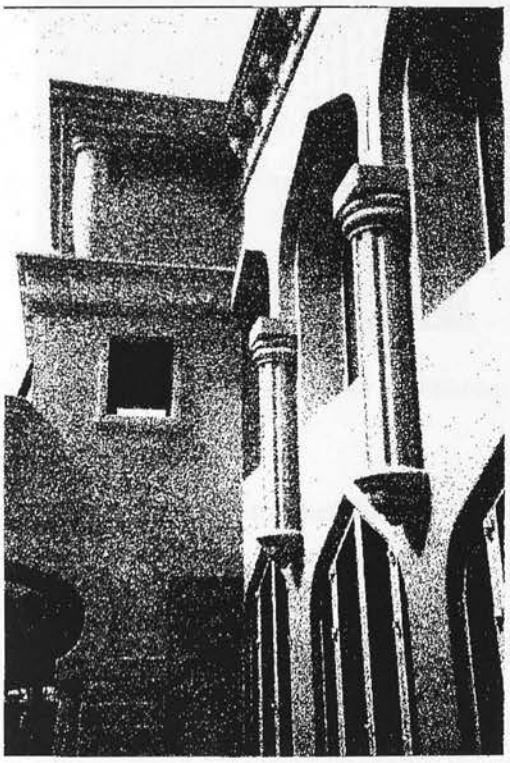


Fig 1.20 Concrete blocks moulded in architectural shapes.

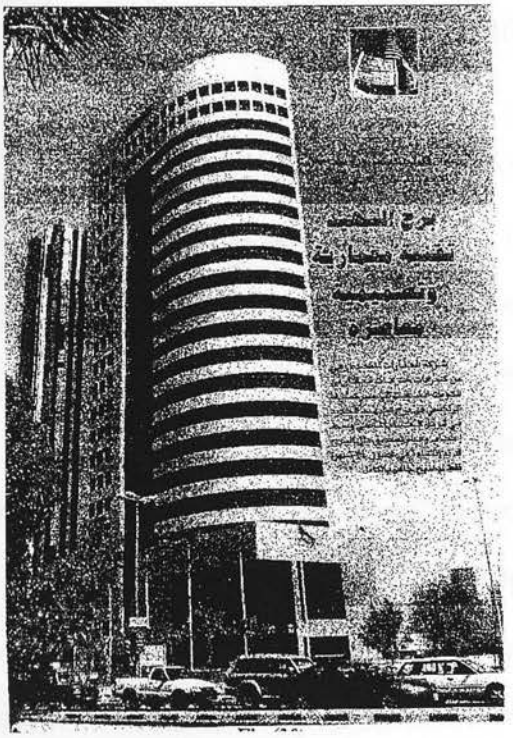


Fig 1.21 Aluminium sheets used on high raised Building in Kuwait City.

the demands of this realm. At the same time, it has disconnected itself from its own immediate environment and natural setting. In its ultimate manifestation is the Chamber of Commerce (c1978), it high and isolated, a single architectural entity. Its surface of stone cladding was not inspired by the techniques and abilities of craftsmen but features a rigorous pattern that evokes geometrical ideas. The windows are applied upon every vertical surface, irrespective of orientation in a place of such harsh sunlight.

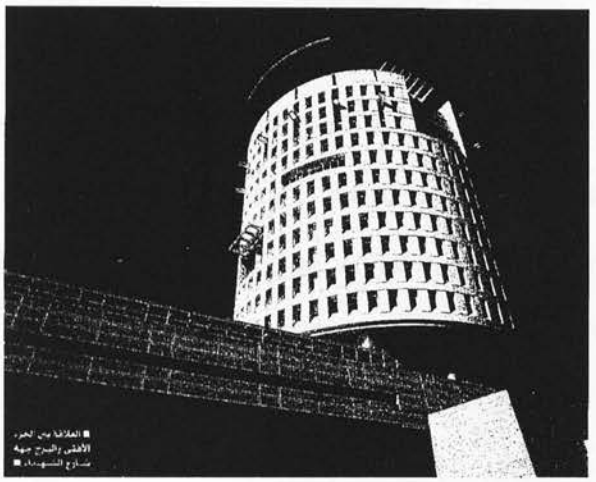


Fig 1.22 Cut stone used to cover the Ministry Building of the State of Kuwait.

1.12 Conclusion:

The heritage of Kuwait has suffered greatly from the way it has been perceived by decision-makers whose project it has been to turn Kuwait into a modern country with a modern economy. Traditional constructions in Kuwait City that had been made in mud were swiftly demolished by bulldozers in the desire to remove the 'backward' past and to clear the land to construct new buildings. The rising population also became financially capable and sought to construct new buildings of the highest international standards in which to enjoy the fruits of modernisation. The author does not denounce this active construction movement which can be seen all over the country. It is a genuine consequence of the wish of the people to obtain better houses, and it is the nature of things that the new shall replace the old. What he does regret is the loss of environmental and cultural awareness as well as understanding that had arisen

during that period, and the lack of plans and regulations in the process of reconstruction to insure the continuity of the Kuwaiti architectural heritage. So much has been lost or changed that coming generations will have lost the opportunity to look into the experience of the many past generations who had lived in this land and learned to adapt and celebrate its environmental conditions. They will no longer be able to appreciate the deeply held values and priorities of their forefathers, which yet remain as powerful dimensions in the mind, emerged from a sense of place and of which architecture was the most manifest physical demonstration.

While this chapter provides information into the scale of the changes that have occurred in Kuwaiti architecture, the following chapter makes a deeper investigation. It looks at how the priorities, values and connotations associated with architectural elements still exist as a structural and meaningful world-view in the terms that old Kuwaiti architects use to describe the range of the building components. The intention is to demonstrate how the vocabulary of architectural features, although on the surface it is restricted to only one aspect of human behaviour, in fact refers to a broad and holistic spectrum of phenomena.

PART ONE

CHAPTER TWO

LANGUAGE AND ELEMENTS OF KUWAITI ARCHITECTURE

Chapter 2: Language and Elements of Old Traditional Kuwaiti Architecture

2.1 Introduction:

Architecture, in its purest form, can be one of the noblest of those social sciences based only on the creativity of human minds. It does not consist only in the observation of geometrical givens or of the application of acknowledged doctrines of proportion. Rather, it embraces the potential to be a science of feeling and meaning, a way of life, habit and behaviour (Ruskin, 1837).

It is this ability to transcend basic engineering solutions and to create patterns that express human aspirations, that distinguishes the various national and cultural approaches to architecture. It is therefore both interesting and useful to trace the distinctive characters of cultural architecture, not only in the way it adapts to the environment and climate of its immediate surroundings, but for the way it communicates the man-made cultural phenomena of language and spiritual meaning that stand to identify the nation where it has arisen.

In a climate like that of Kuwait, which is a desert and coastal country characterised by resource scarcity on many fronts, an architectural expression evolved that celebrated what little there was, transforming a physically hostile region into a place of subjective sufficiency, did once emerge. Yet the rapid development of the last few decades has put barriers between the people and their place. An architecture of mud and timber supports that celebrates the challenge of finding shelter against the elements has been substituted by buildings of granite and marble held up on steel columns. The fantastic has come to be mistaken for the graceful, the complicated for the imposing. Superfluity of ornament is now the indicator of beauty and its absence represents a crude and backward way of life. The city, once a place in which social systems emerged, thrived and expressed their deepest requirements, have become characterised by block of houses that have replaced a sense of neighbourhood with one of individual display. Meanwhile the public

spaces of the city have become a workshop for cars and do not invite social, pedestrian engagement for their rules and priorities have lost much of the respect for the human being.

All these disadvantages might, at least to some degree, be counteracted if the attention paid by architects came to appreciate that the language and spirit of Kuwaiti architecture was inspired by finding a balance between the resources of the environment and the cultural and social needs of the people. This is, in essence, an appeal to recombine architecture not with 'place' as a volumetric phenomenon but as a space in the imagination composed of human aspirations and given structure by language and cultural knowledge.

This chapter attempts, therefore, to illustrate the principle the neglect of unity of meaning, a neglect which is manifested in these problems. It considers the architecture as a cultural phenomenon influenced by the feelings and manners that are typified in the traditional Kuwaiti society and given shape and proportion by the skies under which it was erected and the environment in which it was nurtured. The chapter investigates the meaning of words associated with the street, public space, the house and the mosque and minaret. The focus of its interest is therefore on buildings that emerged from and express inherent cultural knowledge and significance.

2.2 Language and Elements of Kuwaiti Architecture:

Traditional Kuwaiti architecture has a language and terms of its own, shared by society despite the ethnic mix residents who established the city and incorporating into it their different cultures, social customs, religious beliefs (inherited and attained). All of these cultural inputs have shaped an architecture that maintained their own spiritual, moral values and social manners and those of the wider urban community, as well as adapting to the surrounding environment without

wrecking or sabotaging it, as has become typical of modernisation. The traditions the evolved can most clearly be seen in the construction of the domestic courtyard home or 'al-beit'.

If one examines the individual housing unit or the accommodation cell, one can see a group of adjacent mud masses with no external gaps, especially in the lower levels, high walls and roofs with only one entrance limited to a specific purpose. The spaces of the units vary considerably in regard to what the residents need, and according to their financial capacities. In most cases the units consist of several informal elements that secured, in a modest way, the requirements of its inhabitants without arrogance.

One can observe that the general appearance of these units or the architectural lines are gentle ones that conform with the circulation of the wind, and the flow of the rain, to prevent the mud exterior from confronting these two powerful natural forces. This helps to protect these units and to minimise the amount of maintenance they require. They also embed construction works and the architectural style, with knowledge and wisdom of the environment. The result is a fabric of conjoined buildings and narrow routes between them, as mentioned in the previous chapter. It is significant that, although it is infrequent, rainfall was taken into consideration too. Manmade pools were excavated to collect precious rain water to be used later and prevent floods, while the mirzam water sprouts and ash covering the roofs, as mentioned above, reduced the loss of building material to rainstorms.

These constructions were set up by the residents themselves. They took it upon themselves to perform this duty, based on their own skills and workmanship without outside help, except for some ornamental and engraving works introduced from India and Iraq, for Kuwait was a stopping place for the pilgrims to Al-Hijaz country in the Kingdom of Saudi Arabia. Most of the tribes who came from North East Iraq would pass through Kuwait, before performing the duty of

Haj, making Kuwait a strategic place on the map. Here different Muslim nations would gather and meet, each with its own different culture and many customs from which the old Kuwait people derived many decorative and architectural patterns.

Another significant character of traditional Kuwait architecture was that most of the building materials were of natural origin, and were obtained locally. They resisted the harsh weather conditions, and were used without destruction to the environment. For example the trunks of old palm were used in constructing the roofs, pillars and bridges, coral rocks and mud were used for the walls, ashes left over from burning coal and wood were used, to waterproof the roofs, burned gypsum plaster was used to whiten the walls inside the houses, and baked terracotta bricks imported from Iraq were used as floor tiles in rooms, paths and courtyards. This diversity from scarcity proves the creativity of the human being at that time, with very limited scientific manufactured and materialistic resources. From here stems the importance of 'al-beit' the first word used to name the place of residence, the comfortable place where one lives and brings up ones own family, the place to be proud of living in and for receiving friends and relatives.

2.2 The Meaning of 'Al-Beit':

In the Holy Qur'an it is written that the first 'beit' for worship set up on earth is The Holy Kaaba, that was built by the Prophet Abraham (peace be upon him). Connecting the word 'beit' with the house of worship is an honour to this name, and brings out its importance, dignity and the respect to its resident, and also the importance of preserving it.

The root of the word 'beit', goes back to the word 'bat'. This means spend the night, or sleep, and there are many wonders in the state of sleep, when the senses of a human being like vision, and hearing are at rest, and every muscle relaxes and the mind escapes totally from many of the mundane pressures of the world. This important function of the human body requires a safe

area, the 'beit', and this is best provided in the house that the householder has worked hard at for many years to build, and maintain. Thus in other Arab countries, when guests are asked to stay, they are told "bayet indina", or "please sleep over for the night in our house" (discussion with Dr. Faozi Ujam).

The word 'beit' is also used to name the tents of the nomads, the Bedouins who wander and travel as a way of life. They call their tents, in which they live and sleep 'beit al-shaar'. Al-shaar means hair, and it relates to the material used in weaving the tents, which is actually the wool of the livestock they raise and herd (sheep, goat or camels) These creatures are indispensable to the Bedouin livelihood. From here comes milk, leather, fur, and manure. Their need for pasture defined tribal Bedouin territorial rights. Livestock symbolised security and livelihood; their wool symbolising a safe place to sleep.

Al-beit is a house that resembles the surrounding environment in shape, colour, and elements. Its spaces and materials represent a microcosm of people's beliefs and associations of their traditional environment and of the mysteries of life itself.

2.3. The Language of Some Architectural Elements:

Hoash, otherwise written as 'Hawash' or 'Yohawish', means to gather. This word can be used in gathering money, things, individuals or any other units to note of them a group that itself is a single element.

Al-hoash in Kuwaiti architecture is a spacious space open to the sky, its flooring can be just plain sand, or tiled with 'ajar' tiles or bricks from Iraq. Al-hoash has four sides. The first one is towards the entrance of the house; the second is the 'leewan', through which one can access the bedrooms; the third is service rooms consisting of the kitchen, the store room, laundry room etc.;

and the fourth is either the wall of the abutting neighbour's house, or it might be another 'leewan' to other bedrooms, or another courtyard serving a different purpose such as for animals or servants (The Abridged Kuwaiti Encyclopaedia 1992-3).

2.3.1 'Yowahish', to gather:

The courtyard functions in the gathering place not just of objects and people, but as a centre to Kuwaiti life that meets the requirements of many social, political and cultural dimensions. This subsection describes a range of these.

'Yohawish Al-Nather':

'Yohawish al-nather' means to gather together the vision of all the within the house into a single core. If one sits in the middle of al-hoash one can observe all the activities going on in all directions; through the leewan one can see the members of the family going in and out of the bedrooms; through the dahleez one can see those who enter and leave the service and the kitchen rooms. It is also possible to watch people going up the satih (the open roof) or descending from it, and anybody who enters an other hoash if such as that for livestock there is one.

'Yohawish Al-Bard:

'Yohawish al-bard' means to gather the cool climate. The mechanisms that have been adapted over the centuries depend on the phenomenon of the earth absorbing the heat at daytime, and releasing it at nighttime. Thus the owners would spray the baked clay terracotta bricks on the floor of al-hoash with cool water in the afternoon before dark. These absorb the water and slowly release it through evaporation taking away with it the heat of the ground, and thus cooling off the air, and with it the spaces and the walls surrounding it. Al-hoash then becomes a microclimate of

humid and cool water vapour, keeping the house pleasantly cool throughout the entire evening, an important environmental function of the courtyard.

'Yohawish' Family Members:

As a consequence of the previous environmental function, al-hoash offers an ideal place for all the residents of the house to gather in the evening, dine together or while away the evening in conversation, with lots of room for the children to play under the supervision of the adults. Because it was customary for the sons of the household to continue living with their parents, these frequent bringings-together of the extended family strongly reinforced the bonds between people. Sometimes some members or children of the family slept in this space until the next morning.

'Yohawish' Social Functions:

The large space offered by al-hoash allowed for many social functions to be held, especially in 'beit al-hamoola' or the father's house, where children and relatives would gather every week. The generous courtyard, and the centre of the household, was the venue for wedding parties, religious ceremonies involving chanting, singing, and celebrating religious feasts ('eids'), and for sad occasions too, when a member of the family died and friends and relatives offer their condolences.

'Yohawish' the rain water:

In the centre of each courtyard was a well ('jeleeb'), the water of which was used for people and livestock unless it was salty, in which case it was used for washing. These wells relied solely on underground aquifers but the traditional people adapted a method to augment their supplies when the rain fell.

In the past the people of Kuwait looked forward eagerly to the rain. The dry desert climate and the scarcity of fresh water, the difficulty of obtaining it and the cost of importing it by water booms from Shatt al-Arab forced the residents to develop a unique way to collect the water that fell in such abundance during the rainy season. For this a thick white sailcloth was tied to the 'chandal' posts at the four corners, such that it completely covered the entire place. A hole was made in the middle of the sail, positioned above the water reservoir located in the middle of the courtyard floor. This procedure was prepared in advance of the rainy season, for rainfall is infrequent, but sudden and heavy.

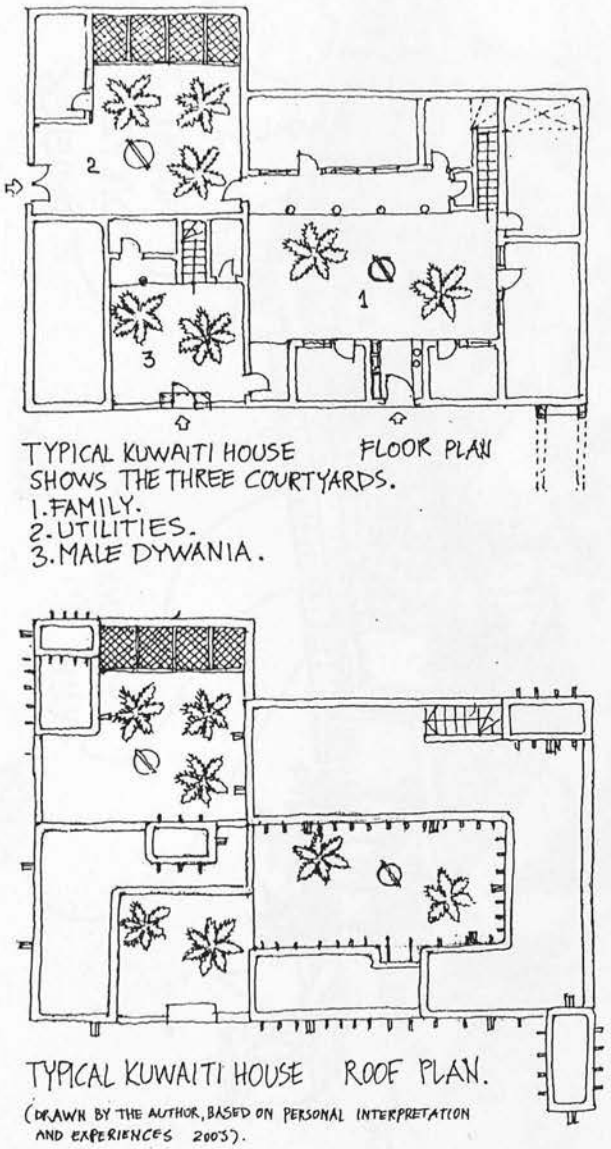


Fig 2. 01: Typical Kuwaiti house - plans

Figures 2.01-2.03 show many of the elements of traditional Kuwaiti housing compiled into drawings by the author.

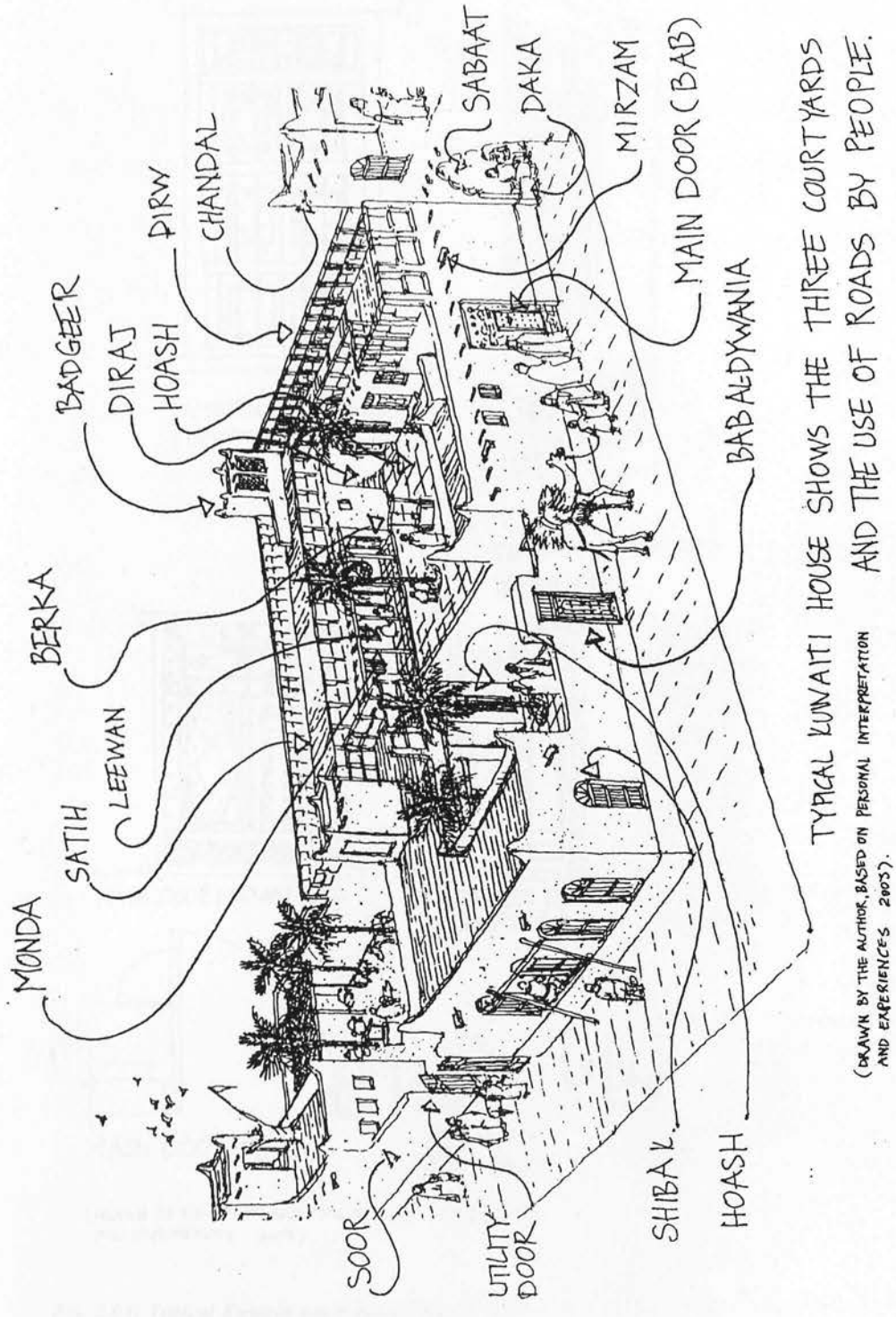


Fig. 2.02: Detailed overview of typical Kuwaiti house

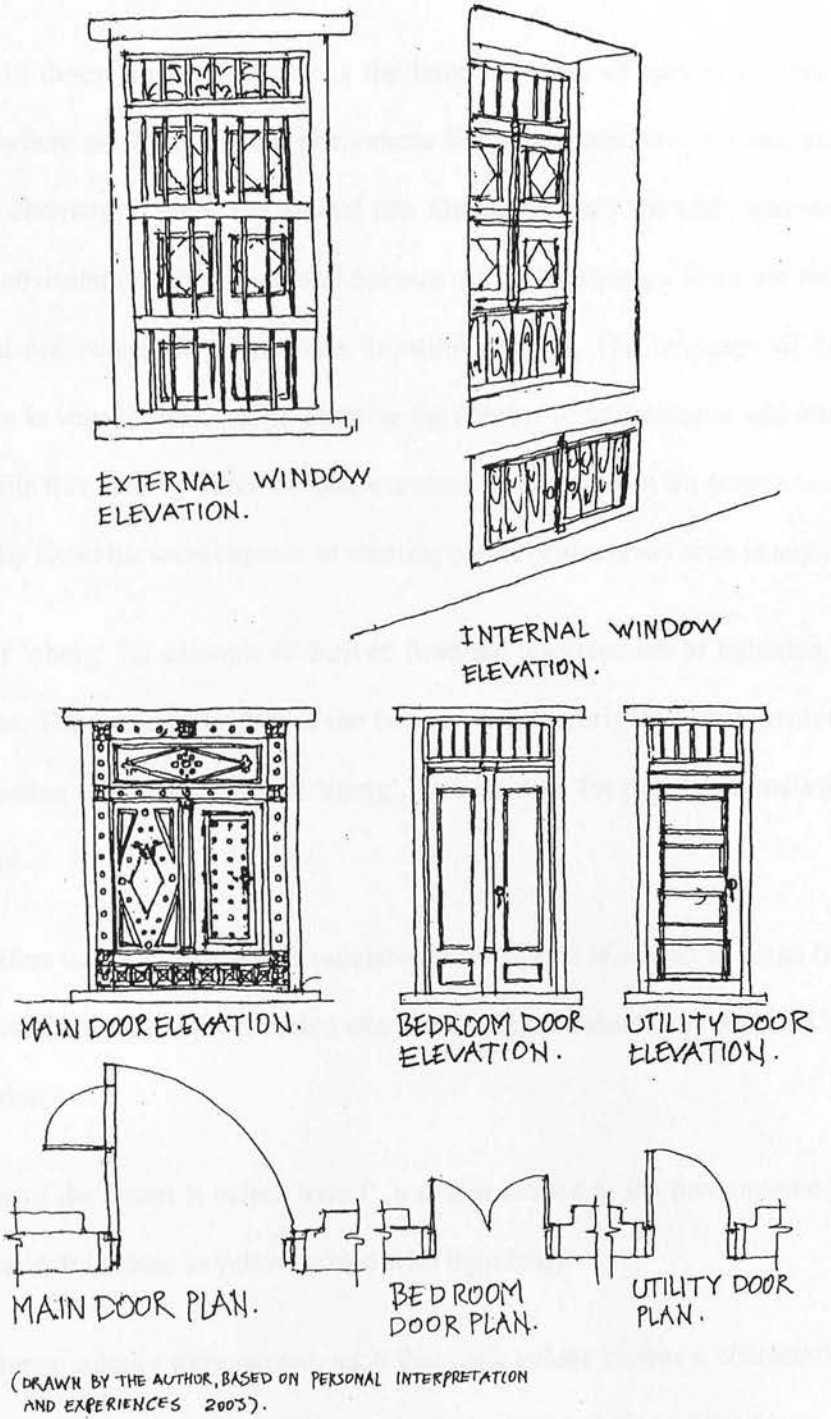


Fig. 2.03: Typical Kuwaiti window and door details

2.4 The Language of Colours:

The Kuwaiti desert environment lacks the huge spectrum of natural colours as seen in other countries, where colourful natural phenomena like mountains, rivers, oases and tropical forests embrace a diversity of plant and animal life. On the contrary the main impression of Kuwait is that of an environment poor in natural colours. As a consequence there are only a few terms or names that are connected to nature's beautiful colours. The language of colour in Kuwaiti architecture is very limited, and to describe the colours of architectural and ornamental works is hard. Despite this, and by virtue of their expertise in and renown for trade across the Middle and Far East, the Kuwaitis were capable of creating natural colours not seen in any other Gulf States.

The colour 'abrag' for example is derived from the phenomenon of lightning in the dark black desert skies. The joining together of the two colours, the brightest white with the darkest black, into contrasting elements, is called 'abrag', a name used for people, animals and in ornamental architecture.

'Bashii' refers to any colour that is repulsive to the eye. It is similar to beige (in name also), and is an artificial and dead representation of a depleted sand colour. It is despised and no one desires its possession.

The colour of the desert is called 'ramli', a colour related to the predominant natural substance, which is sand. It is close to yellow mixed with light beige.

In this manner colours were named, such that each colour evokes a characteristic of the natural environment. For example Kuwaiti's speak of a colour as being of the desert, of the sky, of the sea, or of the green of a palm tree frond or olive tree leaf. This way of describing colours has been carried out in the past, and reflects the ancient connection between man and nature.

- Brown is called 'cacawi' that is to say the colour of the cocoa fruit.
- 'Hantawi' is the colour of wheat, a well-known plant in the old Kuwaiti community.
- 'Shathri', the colour of the turquoise gemstone, was very popular and often used by Kuwaiti women.
- 'Kuhrumani' the colour of amber, a yellow orange golden colour that is very popular in making men's rosaries and also used in prayer.
- The colour of intense white is sometimes called 'sawla', or 'sulkh', and is used to describe the colour of a man with a reddish complexion.
- The colour 'ashab' is grey with streaks of black, it is linked in colour and shape to that of a meteor, a cosmic phenomenon can be seen at night.
- If a colour has faded it is called 'cashif' similarly if it has lost its lustre it is called 'bahit', this also suggests that the object needs to be polished.

The old architects used a simple way to describe colours by referring to the elements that were used in their daily life, whether a plant or a fruit. Green 'akhdar' is the word used for vegetables, the colour orange 'burtugali' is linked to the fruit orange, and the colour lemony 'laimooni' is linked to lemons. From the common drink coffee comes the word for dark brown 'Gahwaii' (The Abridged Kuwaiti Encyclopaedia 1992-3).

2.5 The Language of Dimensions and Area:

Mathematical numbers, lengths and measurement units are important geometrical tools used in construction planning and urban design. These tools have been used by ancient civilisations, the Pharaohs, the Romans and the Greeks. The science of measurement rose to glory during the Islamic civilisation when geometry and mathematics reached their peak. Geometry in particular was magnified in the Al-Hambra Palaces in Andalusia, the mughal Taj Mahal in India and many more architectural wonders in Morocco and Isfahan.

However in modest societies like the desert society of Kuwait, these sciences were out of reach of the population. They realised instead a simpler method of codes that had evolved between the members of the community, was agreed upon in transactions and in construction agreements, and crystallised over generations into a comprehensive system of measurement.

One of the earliest units of measure to be used was the foot, 'al-qadam'. This was to establish fixed lengths along the ground, as it was not a complicated task to walk from one marker to the next, keeping the toe of the back foot against the heel of that in front, and counting the steps required. For height the unit 'al-thiraa' was used. If a man extends his right arm horizontally and turns his head to the left at the same time, the distance between the tip of the right hand fingers and the tip of the nose is al-thiraa or this was mainly used in measuring fabrics and ropes, an activity that lends itself readily to such materials. The whole community recognised the legality of this practice even if it financially favoured the short trader over the competition with longer arms.

Another measuring unit used was 'al-shibir', This uses the palm of the hand when the fingers are extended and the space between the tip of the thump and the pinkie is measured. on the other

hand the 'al-fitir' is another hand measuring unit signifying the space between the thumb and the index finger when these are outstretched.

This informal system of measurement also extended beyond the individual to the social group. To divide area of land under different ownership a sign 'rasim' was used, also called 'al-shahid', the Arabic word meaning 'to witness'. This demarcation of territory is something everybody witnesses and agrees upon. The word 'rasim' is still used in mapping out borders between countries, under the supervision of the United Nations Organisation.

The simplicity of the Kuwaiti society is clear in the geometrical codes used, especially in measuring spaces and dimensions; this simplicity reflects the level of respect and understanding between people, and the rarity of disagreements in property buying or selling, or in building construction.

2.6 The Language of Place:

Kuwaitis had a special and a distinct way in naming places, neighbourhoods, residential areas coastal and non coastal, or by other means the villages located outside 'al-soor', the wall that was built around the city.

The shape of the land that was inhabited in the past lacks any means of geographical identification. It was flat, monotonous in colour, had no mountains no valleys, no oasis's, nor rivers etc. that could help bring character and 'figure' to the area. The following extract from Norberg-Schulz (1984 page 45) is a powerful evocation of this boundless landscape:

> In the desert the complexities of our concrete life-world are reduced to a few simple phenomena:
>
> The infinite extension of the monotonous barren ground; the immense, embracing

> vault of the cloudless sky…; the burning sun which gives an almost shadowless light; the dry, warm air, which tells us how important breathing is for the experience of place… Even the dimension of time does not introduce any ambiguities. The course of the sun thus describes an almost exact meridian… Sunset and sunrise connect day and night without transitional effects of light, and create a simple temporal rhythm.

Lacking any sense of proportion imposed by the landscape, Kuwaiti people turned to the human body, and referred all ideas of place to it for its important functions and deep meanings, which then took root in the human mind, and thus became abstracted into a definition of place.

There is an area of Kuwait called 'Al-Raas' meaning the head, since the whole Kuwaiti coast has a straight line, reminiscent of a person's shoulder, and any part of the coastal land that juts out into the sea is called 'Al-Raas'. This name is still used today, in for example 'Raas' Al-Salmiyah, the head of the town of Salmiyah.

Another area called 'Al-Oyoon' or the eyes. This area is known for its several small water springs, and the name relates to the human eye when it bursts into tears, and fluid comes out of it. This name is also still in use to this day.

'Al-Baten', meaning 'The Belly' is an area of slightly raised land or a mound. When a traveller in the desert sees such a high land on the horizon, it is a natural response to imagine that the land is bulging, and similar to a human belly. An 'Al-Baten' area was also known for its green grass that covered this sort of land in the spring time.

'Al-Thahar' means the back of the human body, and it is given to an area in Kuwait that has a spine like appearance, with a chain of mounds with side rifts, made by the erosion of the ground

by rain water and that extend outwards resemble ribs.

It is also common for the word 'Abu', meaning father, and the word 'Um', meaning mother, to precede the name of several places in Kuwait. The old Kuwaitis not only used these names as a way to honour the mother and father but to humanise the landscape, creating an immediate subjective attachment to it. Examples include town names such as Um al-Heiman, Abu al-Hasanya, and Ibn Ateibikh which derives in part from Ibn, the Arabic for 'son'.

The old Kuwaiti border was known as al-Hizam al-Akhdar, which means the green belt. The use this name is an expression of the unity of Kuwaiti people, as one body, and its border as a belt that fits tightly around its waist, or using another connotation of the belt as a means for security, which refers to the protection the border needs to provide against any enemy.

It is also significant that the traditional Kuwaiti used other elements that are close to his everyday experience, to define orientation in the desert. The direction of sunrise is called 'Sharq', which means east. The direction to which every Muslim faces five times daily during prayers is called 'Qibla'. This is the direction towards the Holy Kabaa in Mecca, so is different around the world. In Kuwait, Qibla coincides with the west direction that is of the setting sun. The zone between these two meridians and to the north is called 'Wusta', which means the middle. As to the southern area, from which the camels come from the desert, this was called 'al-Murgab', which is related to 'Rigab' which means 'necks'. This is a vast land, from where Bedouins and their camels come to the city, often seen as a large herd of necks from afar. These orientations are still in everyday use in Kuwait.

As the city expanded and huge constructional programmes began to take the place in the sixties, simpler names were used to identify areas. The basic letters of the alphabet were adopted as a source of easy memorable names. One area was called 'Alif' meaning the letter A; another,

'Baa' for B, 'Waaw' means 'W' or 'Jiim' means 'J'. Thereafter, the names of Kuwaiti Sheikhs, rulers, important occasions, battles etc. were used to name residential, commercial and touristic places (Kuwait Municipality, 1988).

2.7 The Language of Urban Spaces:

Vast spaces and long streets are not confined to the planning and development of European cities, but were often applied in the east and in Arabic countries. The layout of the roads in old Kuwait City, which had been described as a simply structured and modestly constructed city, was built from a system of roads and spaces identified by names that reflected usage, names that are still used among people and city planners alike, despite the massive development of the country.

'Al-baraha' is defined by Al-Saeedan (1993), as a spacious land between houses, used as a playground by the neighbourhood children. Most of the play time took place at night under their moonlit skies. There are several 'barahat' (the plural of baraha), the most famous of all being Barahat Mubarak, named after Sheikh Mubarak, Barahat Bin Mjaibil, Barahat Hmood Al-Nasir and Barahat Al-Mass. As can be seen, these 'barahat' are all named after people. The baraha, as a vast empty land, between neighbourhoods, made an important contribution to the city, being used as a recreation area and a place to walk in at any time during the day without fear from the parents part. Modern urban planning lacks this important place, for the white spaces of today's city are not social in nature, reaching them is difficult, and some need careful planning as a family trip whether for recreational or a commercial visit. A mosque can usually be found in 'al-baraha' as well as some small shops, a necessity for a society that is rich in its culture and traditions.

Another important space in the old city planning is called 'al-fireej'. It is derived from 'al-fareek' and means a group of people. This name was used to identify a group of converging houses, the owners of which could be related to each other or have the same trade like builders, carpenters, blacksmiths or shoemakers, or could have come from the country. The entrance to each fireej, 'al-ayer', was a place where people young and old could gather, have conversation, and monitor the traffic in and out of al-fireej, here one could hear humorous remarks, discussions about playing games, taking trips to the sea, hunting stories, or other leisure activities at that time. So al-fireej was an expression that identified a certain place by virtue of its occupation by individuals who shared some aspect of their background. In all cases each al-Fireej is named after a person or a definition (such as craft) related to its group of individuals.

'Al-Sufat' is a vast square, described by al-Farhan (1986) as a vast square founded by Mohammad al-Rijaiba two centuries ago. The Sheikh of Kuwait used to sit at the entrance of al-Sufat with a group of his assistants to identify any incomers, and people heading to the desert. It is also called al-Sufat because it is clean, empty and clear of houses. Men would traditionally come down to their square to dance and sing while celebrating happy occasions. At such times everybody would be brought together, grudges would be forgotten and mistakes forgiven. This vast square thus had an important function politically, religiously and socially, a basic demand that is sorely needed in Kuwait's modern society.

There are also small residential districts connected to the city via wide roads, and called 'dawahi' the plural of 'dahia'. These housing masses are usually located far from the city centre. Their residents run the city's political and commercial affairs. For those residents living in the outskirts means getting away from the noise and crowds in the city. The word 'al-dahia' is derived from the word 'duha', meaning the beginning of the day, the time of energy and activity.

'Al-hufra' is a depression in the ground dug out by an animal or a human. Rich Kuwaitis volunteered to make 'al-hufra' as a charity to the community. It is a large sunken reservoir reinforced with sea rock to prevent its collapse. The hufra functions as a large water store that collects torrential rain water that can be used later as drinking water, or for other purposes. Each hufra is usually named after the donor, like Hufrat al-Abdulrazag or Hufrat Ataibikh or Hufrat al-Abchal. There are more than thirty 'Hufra' named after those who took it upon themselves to help the community. Such charity is said, in the Hadiths of the prophet (peace be upon Him) to be and a religious work that honours its doer. The large space of al-sufat has one such reservoir in its centre (Kuwait Municipality, 1988).

There are so many more urban places and spaces of significance that had a social or environmental function, each having a deep meaning that relates to its function. The author presents a brief glossary of the most significant ones.

- 'Baraha' A space between houses.
- 'Sabakh' A land which contains high level of salt.
- 'Seef' Water Front
- 'Fireej' A group of houses.
- 'Khoor' Extended seawater covers the land.
- 'Seihad' A hill.
- 'Wati' A slope.
- 'Bandar' Sea Port.
- 'Taifonia' Sewage Hole.
- 'Thimayl' A shallow well.
- 'Jinalyat' A place to obtain mud.
- 'Sooq' A shopping place.

- 'Khabra' Shallow water.
- 'Edeithem' A hole that contains mud.
- 'Abatih' Empty land.
- 'Deera' The capital city.
- 'Thari Protecting object.
- 'Thirwa' High land.
- 'Rimadan' A place where gypsum sand can be obtained.
- 'Zihia' A place for collecting locust.
- 'Simada' A place to collect human waist for agriculture use.
- 'Sbakha' A place for collecting city garbage.
- 'Sufat' A clean space.
- 'Ayer' A place were young people gather.
- 'Adama' Wide land.
- 'Fadda' The vast land.
- 'Furda' A port for goods.
- 'Gam' The core of the land.
- 'Gahwa' A café.
- 'Mattya' A land from which mud for building is collected.
- 'Magsab' The slaughter house.
- 'Manakh' A place for mounting camels.
- 'Nigaa' Sea port.
- 'Hufra' A hole in the ground for collecting rain water.
- 'Mijus' A place for collecting gypsum.

Sources: (Kuwait Municipality, 1988).

2.8 The Language of Roads and Paths in Urban Districts:

Roads and paths in the past were named with simple easy names that reflected their functions for traffic and travel, for both humans and animals alike. These uses defined the capacity of the main roads, their lengths and dimensions, and the ways to reach them. The roads that passed from the desert to the inner city were considered to be the main roads. They ran from the gates, and passed through the city, to the places of commercial or official businesses. For example Al-Jahra Road begins at Al-Jahra gate and ends at the city centre. This road was used as a trading route between Kuwait and Al-Basra, and is still an important road this day. Al-Shamia Road leads from Al-Shamia gate. It is the wide road Bedouins take to import goods from al-Sham (modern-day Syria, Jordan, Lebanon and Palestine) and sometimes the name 'al-shari', the sail, is given to a road or a wide path that connects to the middle of the city, and from which a sail can be seen very clearly.

From these roads narrower paths branch out, and lead to the inhabited neighbourhoods, al-sikeek the plural of 'sikka'. The dimensions and forms of al-sikka are variable, the laws and proportion the planners used at that time were purely environmental, social, and security elements that shaped the sikka. Right along their length they provide shaded areas for passers by to move from place to place. It is very dangerous during the summer days to walk unprotected from the sun, and traditionally the Kuwaitis were conservative Muslims who observed praying at the mosque five times a day, once at noon time. Partly shaded paths were an environmental necessity, as people walked on foot to reach their destinations.

Within the sikka the set back of the houses designed such that if one stands on the roof of ones house, the courtyard of the opposite house should be out of sight. In this case, moral and social elements, rather than environment necessity define the how much the set back should be. It is

also observed that the houses along each side of al-sikka are attached to each other for environmental and security reasons, for the protection against the dusty wind, and to minimise the exposed surfaces to the harsh weather, and also to deter any intrusion. The attachment of the houses also makes it easier to move between roofs or from one 'satih' to the other in case of an emergency, or even visiting neighbours especially for women's without using the usual way, which is through al-sikka especially at night time, when going out at night is not preferred by women for social reasons.

Another kind of al-sikka is 'sikkat sad', a narrow road that branches from a main sikka and is closed off by the wall of a house. This planning system is for security reasons; it prevents strangers from entering the neighbourhood, and also to ensure that lost children or animals cannot wander any further once they become trapped in the dead-end roads.

As it is seen, the language of roads and paths illustrates a deeply held social meaning in Kuwait many names are used to identify passages and roads such as:

- 'Darb' A narrow road.
- 'Jadda' Branched road.
- 'Daoos' Very narrow path.
- 'Darwand' Small bridge.
- 'Nagab' A path between two houses.
- 'Daw' Caravan road.
- 'Sikkat Sad' Dead-end road.
- 'Sikka' A small path.
- 'Shari' A main wide road.
- 'Teibikh' A water channel.
- 'Tareek' A long road.

- 'Midriban' A narrow long path.
- 'Mishaab' Rain water path.
- 'Mantakh' An exit.
- 'Meid' The end or destination.

(The Abridged Kuwaiti Encyclopaedia, 1992-1993).

2.9 The Language of Building Materials:

The indigenous local architecture in Kuwait was not created for political, economic, or military issues, but as a response to the human desire to live modestly in a way that connects to the harsh desert nature of the land, without disturbing or dominating it. This reveals itself compared to architecture today, in a way of simple living, and taking advantage of what was the available natural resources. For this reason the language of construction materials reflects what was available on this part of the world, as observed in the language of houses, bazaars and mosques. These buildings are kept low to avoid the dusty desert winds, and avoided the use of expensive imported materials. On the contrary, the language of its materials is mostly determined locally and very easy to use.

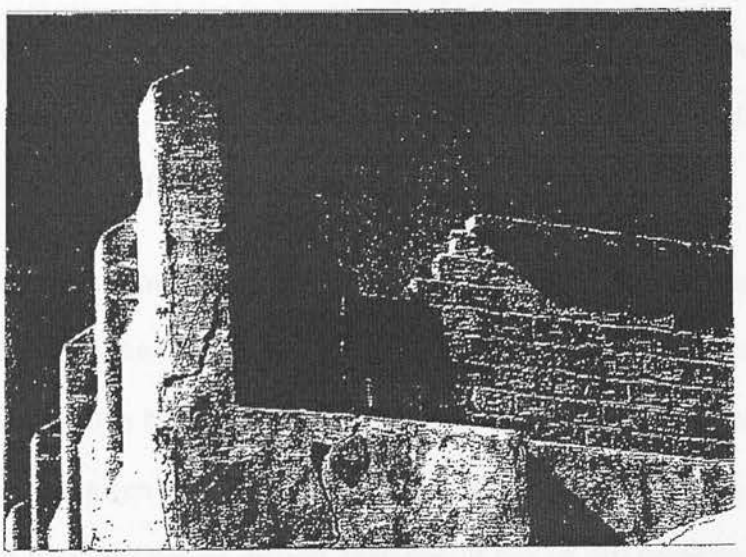


Fig. 2.04 A parapet design in an old Kuwaiti house designed for security and privacy and providing ventilation

'Al-teen', mud was a natural substance mentioned in the Holy Qur'an, when it describes how the first human being is created from

mud, therefore elevating a very humble simple material to an entity of profound meaning and complexity. The people of Kuwait used mud in the past as an adhesive mortar, laid between coral rock stones. Often straw ('tibin') that was left over from animal fodder was added to the mud to increase its solidity and allow it to withstand the erosion of the rain and the wind. The pool from which mud is obtained is called 'mateena'.

Two kinds of rocks were used, hard coral rocks, and softer mountain rocks like limestone, as well as gravel.

Two types of bricks were used, the local bricks made of mud and hay mixed together with water, before being shaped as bricks, and the yellow bricks that were baked in large kilns to increase their durability, before being imported to Iraq.

The roofing materials were mostly natural. The roof construction was supported on timber beams known as al-chandal, mainly imported from the east and from India. 'Bascheel', sliced bamboo, no more than three meters in length was imported from Sumatra and Indonesia. 'Buri', straw mats made out of palm leaves made locally or imported from Basra along with dates and drinking water, was laid over the bamboo and provided the surface upon which the mud of the roof itself could be spread.

Ashes left from burning palm tree fronds as fuel were used as waterproofing for the roofs. Collecting ashes from Kuwaiti households was a daily ritual: women would sell it to the needy, or collect it to be used on their own roofs against the rain in winter. 'Farsh' means tiling, and is the name given to a special sea rock similar to white granite that splits into flat layers, named after its shape and its distinct character. It has an extremely smooth surface that is difficult to walk on, so it is only used for tiling the walls, to avoid accidents. Usually this type of rock is found along the Kuwaiti coast, slanting towards the sea it is extracted manually with a special

axe to avoid cracks and breaks. 'Farsh' rock is used in tiling bathrooms floors, and laid in the direction of the water flow. 'Farsh' in Arabic means to spread, and the name of the material is derived from the way it is used, laid and spread like a soft clean cool pillow. Naming, describing, and identifying the architectural elements in Kuwait has sought to simplify the process of communication and understanding. Each society has its way of naming objects and events, and should not impose its language or expressions on another society or nation. The language of materials is as specific to the place, the culture and the environment as it is to the architecture itself.

2.10 Conclusion:

Studying the customs and traditions of a nation, its lifestyle, and its way of dealing with the surrounding environment opens numerous and wide horizons for planners and architects, especially those of today. It enables them to experience the inspiration of the unique means in which the people learned to deal with and adapt to their environment, especially in the harsh environments like hot desert climate. In Kuwait elements in the house evolved to meet environmental and social purposes, and to inspire new customs such as the hoash, the roof of the house as a sleeping area in the summer. A distinctive style of planning and construction also came to emerge from inherent environmental and cultural forces manifested most clearly in the way the houses adhere to each other, and narrow passages are used for connecting the residential areas together. These planning solutions are environmental and social solutions that create the feeling of security and ease the movement between neighbourhoods, especially in the afternoon when temperature rises and becomes harsh. This allows the importance of privacy to be observed in the Kuwaiti house, where the living quarters are separated from the guest areas. This separation is welcomed by members of the household; it is an ordinary practice, and considered

as a part of their daily lives.

These old values and standards whether for the connection between neighbours, or the use of an environmental architecture, provides the spirit of continuity that has its roots in prehistorical times. The variety of the environmental elements like the badgeer, mirzam and hoash that are environmentally significant, testify to the long evolution of the traditional architectural patterns. These features still have deep meanings within the minds of the people, and should be identified and researched regarding their benefits and the possibility of reincorporating such meanings and adaptations into society as important parts of the modern house.

Part two reviews some theoretical ideas that contribute towards the research intention is to identify people's feelings towards architecture and design. It investigates insights into how people translate physical objects in the environment into symbolic messages in the mind, and how these are the conveyors of meaning and value in the built environment.

PART TWO

THEORY

PART TWO

CHAPTER THREE

THEORY

Chapter 3: Theory

3.1 Introduction:

In this chapter the author, through referring to the works of a range of scholars, presents the theoretical notions that have guided him towards seeking to identify the meaning behind elements in the built environment. It therefore describes how societies develop and preserve architectural patterns as traditions that the following generations will cherish, maintain and should seek to preserve in ways that suit the modern society. The author feels compelled to this subject matter because so much of what once manifested traditional cultural values in Kuwaiti society in the form of architecture has disappeared. The search for means to embed its intentions in today's society has very few physical points of reference. This chapter therefore introduces the reader to those theoretical insights that open up an awareness of the intangible and deep-rooted values of human cultures.

3.2 Cultural Values: Design and Environment:

Different emotional concepts are inherited by people from their own cultural values and these are used to recognise a range of possible events and ideas. In other words, the diversity of emotions from one individual to another is to a great extent the expression of cultural and environmental differences as well as purely biological and physiological factors. Therefore, it is not possible to generalise when considering the nature and content of human emotions. John Lang (1988) argues that cultures all over the world are unique because they have their own historical backgrounds, for each cultural value is the result of the long term and adaptive engagement of people with their physical and social environment. It is not possible to find two

societies in the world which share similar backgrounds and therefore produce identical world views.

Russell and Bullock (1986, page338) write: 'Happiness, anger, fear and the rest are concepts we inherit from our culture to distinguish types of events', i.e. it is not appropriate to discuss human emotions and feelings in general, even though people are physically the same. The patterns of behaviour are basically different in various societies although they are all deeply rooted in human biology and physiology (Hall 1966; Leach 1976). This point is important because the implication of these ideas is that there can be no global forms or patterns of behaviour, nor should the international community seek to devise one. Taking a holistic view, people's preferences, emotions and perceptions are only meaningful in their cultural context.

There is a common tendency to replace the real meaning of 'culture' with its surface manifestations such as art, or certain highly specialised forms of behaviour. This leads to the objectification of culture within which culture is considered as a 'thing' rather than a 'process'. This happens when a cultural phenomenon, such as a house, is taken out of its cultural context and is examined as an isolated and independent object, rather than as an integral part of cultural life. Amos Rapoport (in Altman 1980, page 287) proposes several definitions for 'culture', which are briefly introduced here:

- That culture is about a group of people who have a set of values and beliefs which embody ideals that are transmitted to members of the group through enculturation (the transmission of culture).
- These beliefs lead to a world view – the characteristic way of looking at the world.
- That in the case of 'design' culture is the 'shaping' of the world.

Among Rapoport's various definitions and explanations are some basic characteristics that can be reflected in built environment studies and concepts. Culture as a set of values, beliefs and a world view, is embodied in people's schemata which are perceptual and cognitive tools through which the human mind produces images and concepts about objects and relations. The purpose of this thesis is, therefore, to attempt a re-integration of cultural life and its manifestations. It regards the everyday, domestic built environment rather than the monumental precisely to avoid objectifying culture and, in its research, it aims to elicit the deeply held principles and everyday priorities of the ordinary Kuwaiti people.

Life style is, therefore, one immediate outcome of these world views. People, surrounded by a dominant framework of unwritten laws and regulations, develop a specific patterning to their choices and this leads to a distinctive and significant lifestyle. As a result, various ways of allocating and using energy, materials and so on emerge, which would necessarily be specific to each culture and society and reflect its engagement with its environment. Many modern buildings in Kuwait City have turned away from this cultural knowledge in, for example, using marble cladding on their most prominent buildings. The marble started to crack and fall due to the enormous stresses put on the fixings by the huge difference between day and night temperatures, which it could be up to 40° in 24 hours. The marble also quickly lost its shine, which forced the owners to replace it with other materials more tolerant of the desert climate.

From these definitions and explanations it is possible to say that culture is knowledge which is both embedded in the human mind and reflected in the environment through symbols, codes, rituals etc. as well as their mutual interaction. The organisation of the environment is, therefore, the result of the application of sets of rules which reflect differing concepts of environment quality. Design can, therefore, be seen as an attempt to give a form of expression to some image

of an ideal environmental quality which is extremely complex and variable (Rapport 1969c, 1977). As a result culture and the built environment can be seen as offering support to each other.

Organising the built environment according to the cultural values and norms in turn sustains the specific cultural life style and activities, thus strengthening the society's knowledge about the environment and its quality. It also projects cultural concepts into the environment as symbolic meanings.

In spite of the time-honoured relationship between culture and the environment, it is apparent that no such a close relationship is considered in today's planning and urban design processes, particularly within the context of Kuwait City.

The crucial dilemma that this research tackles is therefore how to suggest a way that designers and planners could incorporate cultural values into the built environment. The author argues that this is possible through appreciating the importance and meaning of various environmental phenomena within their own context.

3.2.1 Central and Peripheral Cultural Values

All cultures constantly undergo a process of evolutionary transition through which their attributes, beliefs, world view and symbols are learned and transmitted. From this comes a system of rules and habits which reflect ideas and create the lifestyle behaviour and the built form (Rapoport 1977).

Rapoport (1977) also argues that every culture is always experiencing a continual exchange of information with new situations, thus acquiring new elements or attributes from other cultures. If

there is some vital new attribute visible at the periphery, it will be absorbed by the culture and become a constant part of it. Kuwait has experienced an enormous insurgence of such external values, dominating its periphery and perhaps also penetrating deeper into the core values of the culture. This thesis sets out to distinguish the core cultural attributes because these elements should not be given up eagerly for new elements. Even from its very beginning, Kuwaiti society was formed by various groups of people of different ethnic background settling in one place. Some were from Persia, some from Najd and some from Iraq. All brought with them their various cultures, world views, perspectives, beliefs and traditions but, upon settling, quickly came to form a social unit by abandoning some of their traditions along the way. For example the Persians abandoned the rituals of Nourooz (the celebration of springtime), the Iraqis abandoned farming and concentrated on building (much Kuwaiti architecture derives from Iraqi traditions) and the people from Najd gave up the Bedouin way of life to live in the city. All groups became as one Kuwaiti society, appropriating several customs to enable everyone to live in peace.

2.3.2. The Meaning of Cultural Values in Arabic:

In Arabic the word culture has several associations, as indicated below. Each of these contributes to providing an idea as to the meaning of cultural values to the author:

- Knowledge, profession and science;
- Techniques and knowing about sports. The importance of sports and exercises preserves the association of fitness and agility in facing enemies;
- Knowledge and the high arts;

- To learn and to apply learning. Culture is only passed down through the generations if it is learned and applied;
- Wisdom, glory, courtesy and care;
- Appearance of spring;
- Education and literature; and
- Politeness, education and sociability.

In Arabic the basic associations of culture are strongly related to knowledge, its acquisition and application. The real meaning of culture values is not only associated with the final manifestation and production of behaviour patterns and artefacts in a given society, but also the knowledge which persuades people to do, or to create them.

Cultural values are shared multidimensional principles. They do not exist in isolation, but are always intertwined with one another, such that every mode of behaviour or language reflects a facet of the same world view, linking daily activities to spiritual constructs of human reality.

The institutions of society evolve in association with these values because institutions are created to protect a and facilitate social welfare and are therefore nothing but instruments for realising people's valued aspirations. For example, the yearning for peace, justice, and freedom – three of the most cherished human values – is reflected in the establishment of the traditional residential architecture of Kuwaiti settlements. In their unification of housing units into 'fireejs' of shared family or craft background, they maintain a system of social codes that protect and enhance the fundamental right of the residents to live a peaceful life in a just and self-regulating society. Furthermore, as humans are not only spiritual beings but also material entities, their quest to

realise valued aspirations necessitates a designed environment that facilitates the management of their institutions and houses their social and personal activities (Michel Lincourt 1941).

3.2.3 The Nature of Cultural Values:

This sub-section comprises a brief description outlining the main points of cultural values.

- Culture exists in the minds of individual human beings. It comprises all that they have learned in their past associations with other human beings of a shared social background to guide their own continuing interaction with the external world.
- Cultural values vary considerably one from another in terms of interpreting the external world. Therefore, it can be said that cultures values are local rather than global.
- Cultural values recognise that local or indigenous knowledge is a process which is related to human experience of and engagement with the environment, in the way that this knowledge grows and changes over time and across generations.
- Once a culture has been learned and accepted, it tends to persist.
- All cultures are gradually and continuously being transformed. They are in an evolutionary process, therefore, exhibiting a consistent pattern of change.
- Although individuals share the same value systems within a culture, they may behave differently in response to a given situation.

3.2.4 Social Tradition:

Human society does not mean merely the objective set of relationships between the members but also its set of norms, values and codes of behaviour. Since individual persons comprise the

primary component of any society, this research focuses on their environmental activities and behaviour in order to uncover the hidden dimensions behind the various forms in the built environment. It derives this information through the use of an open-ended questionnaire to explore people's perceptions of social activities and behaviours that are strongly related to their physical environment.

Social tradition covers all aspects of life that have been evolved by a group of people, their attitudes and behaviour patterns, and crystallised into a lifestyle that accords with their environment and has continuity over many generations (Hall, 1959). Tradition can include beliefs and perceptions, norms and values, as well as customs and the behaviour of a group of people or society. Within these phenomena tradition conveys what people believe to be true of the world, their lives and the environment. Social traditions indicate people's shared values or what they hold to be good and bad, acceptable and unacceptable.

There are many components to social tradition, as follows:

- Rules and beliefs about how to behave or do things.
- The adoption through multi-party, informal consensus of norms that indicate the knowledge, feelings and behaviours that are shared among a group of people.
- The passing on of these shared beliefs, values and styles of behaviour to others, especially children, through behavioural continuity. In other words, the socialisation and education of new members of the culture to help preserve consensus from one generation to the next.
- Finally, social tradition appears in objects in the physical environment, which explicitly reflect the values and beliefs of a culture.

Through these components, social tradition forms a system that control people's behaviour, to make it appropriate to human concerns and responses based on ethical, moral and environmental values, tastes and judgements.

3.2.5 The Built Environment and Social Tradition:

People live, work, play and act in the concrete places provided by the world surrounding them, both natural and man-made. It is meaningless to imagine any events, particularly social ones, happening without reference to a locality. Place is an integral part of social existence (Norberg-Schulz, 1984).

People react to their built environment in terms of what meanings it provides for them. In other words, behaviour within the built environment is more a matter of latent than of manifest function. It can be said that people deal with and react to their environments globally and intuitively, even before they analyse and evaluate them in more definite terms, applying their inherent and culturally shaped concept of environmental quality. People may prefer certain places in the urban areas, or certain building forms, because of what they mean to them. For instance, some people like places with rural character where there is greenery, quietness and healthy air, while places considered to be industrial, smoky, noisy and dirty may be disliked (Rapoport, 1982).

3.3 Motivation Theory:

Throughout all history of society man has shaped and altered the environment to suit the needs of the community and the individual. While the natural environment offers man numerous resources, man still has to cope with the external forces and conditions and to fulfil his various

needs. In the process of achieving this, the emerging built form has a tendency to impose new circumstances to which people must adapt in order to remain living in social groups with a sense of harmony and shared values that are communicated in the more abstract forms of culture and aesthetics. In all these processes man is driven by the desire to fulfil a set of hierarchical motivations, which can be seen as the actual reasons for creating the built environment in a compatible way that is characteristic of most of the traditional cultures.

Maslow (1987) puts forward a theory of human motivation that he had first published in 1954 and which arranges needs according to a hierarchy of priority or potency. These range from the basic physiological needs (for sufficiency of food, for example) and safety needs to the need for self-expression, which Maslow terms 'self-actualisation'. When the more basic needs are satisfied, the needs that are 'higher' in the hierarchy come to the fore and press for satisfaction. When these are satisfied, another step up the ladder of motives is taken. Therefore, once a person is freed from, say the domination of physiological needs, he moves to a position which allows his rich potential to flourish and he is more concerned with becoming self-actualised.

There have been a number of strong exceptions to this hierarchical order according to Maslow. In this sense the study argues against the assumption that priority of needs may constrain creativity in art and other higher human intellectual activities. Maslow's model, however, is still relevant to studying the evolution and the complex nature of human perception and the internal forces that shape preferences and expectations.

However, Maslow argues that the average desires of daily life have at least one important characteristic: they are usually means to an end rather than ends in themselves. A wish for money is frequently based on the need for self-esteem or belonging, in that it allows the individual to purchase an automobile because perhaps the neighbours have one. This prevents

the individual from feelings of inferiority to or isolation from the neighbour. The analysis of most conscious desires leads beyond those desires to other, more fundamental aims of the individual. The particular desires that pass through our consciousness dozens of times a day are not in themselves as important as what they stand for, but where they lead, what they ultimately mean upon deeper analysis (Maslow, 1987).

According to Maslow there is sufficient anthropological evidence to show that the fundamental or ultimate desires of all human beings do not differ nearly as much as do their conscious everyday desires. Different cultures may provide completely different ways of satisfying a particular desire. In one society self-esteem is secured by being a good hunter, in another society by being a great healer, a very reserved person or having an artistic or intellectual reputation and so on.

Maslow (1971) elaborates further on his views about human psychology. There had previously been only two major forces in psychology: the experimental, behaviourist approach; and the clinical, psychoanalytic approach. For Maslow these two models were not sufficient for they both focused on individuals who had become psychologically damaged as a means to obtain their knowledge. As he puts it, these approaches have lead to a viewpoint in psychology that practically always underestimates the higher possibilities of human nature.

Maslow dedicated his life to the study of people that he considered psychologically healthy, considering these to be 'self-actualising people', who had achieved a high level of maturation, health and self-fulfilment, and therefore had much to offer to his studies (Maslow, 1968). He later argues that "we have come to the point in biological history where we are now responsible for our own evolution… Evolution means selecting and therefore, choosing and deciding, and this mean valuing" (Maslow, 1971).

These 'values' include truth, creativity, beauty, goodness, wholeness, aliveness, uniqueness, justice, simplicity and self-sufficiency. Maslow's study of human nature led him to many conclusions of which these are the most important ones:

- Human beings have an innate tendency to move towards higher levels of health, creativity, and self-fulfilment;
- Neurosis may be regarded as a blockage of the tendency towards self-actualisation;
- The evolution of a synergistic society is a natural and essential process. This is a society in which all individuals may reach a high level of self development, without restricting each other's freedom; and
- Business efficiency and personal growth are not incompatible, the process of self-actualisation leads each individual to the highest levels of efficiency.

3.4 Adaptation Theory:

The process of adaptation consists of three levels, physical adaptation, social adaptation and cultural adaptation. The basis for this hierarchy the interconnection between the motivation and adaptation processes.

It is worth pointing out that, although physical, social and cultural adaptation are spoken of in this section as independent 'stages', they occur holistically: no physical adaptation is entirely lacking in social or cultural intent not *vice versa*. At the same time as the environment is seen to respond to the needs of an individual, it also responds to the collective perceptions of the society's needs as a whole. The result is that there would be a kind of correspondence between both the individual and the societal motivation systems. Much literature on adaptation, however,

tackles the notion in a noticeably unconnected way and therefore offers no clear idea about the relationship that ties these various stages of adaptation together (Masaud 1996).

The process of adaptation in the field of architecture is motivated by the order of human needs, which provide the basis for the interrelated levels of adaptation as expressed visually and spatially in the built environment. One stage therefore comes into existence as a result of the fulfilment of a set of needs related to particular motivation hierarchy.

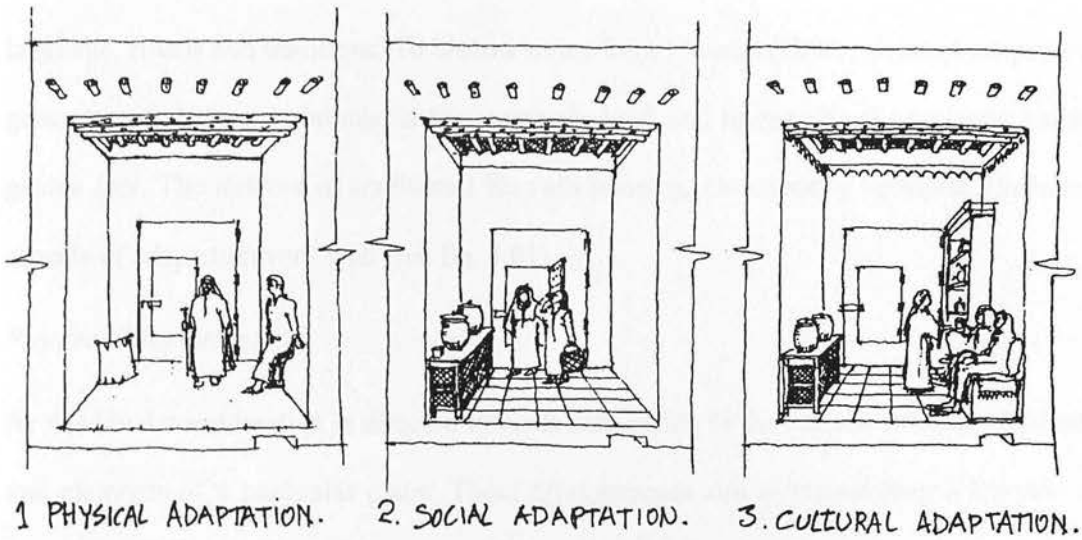


Fig. 3.01: Adaptation of the traditional Kuwaiti dahleez (drawn by the author from his own experiences, 2003) the author from his own experiences, 2003)

In any discussion involving traditional architecture it is important to recognise that the distinctions that create these three stages are merely established for explanatory purposes. Especially in the context of Kuwaiti architecture it is important to show how the building of the house never was simply a matter of meeting urgent physical needs nor was solely the creation of an object of social display. The inherent quality and value of Kuwaiti architecture lies in its synthesis and continuity of all stages of adaptation. The objective of this section is therefore to

demonstrate the characteristics of this relation and to support the idea of the significance of the cultural component in shaping and generating architectural form.

The first level of adaptation concerns adaptation to the physical environment, which is primarily for the provision of protection against the various physical forces. The second level concerns adaptation to the social environment by accommodating the rules and norms which govern the society. The third refers to cultural adaptation, which is concerned with responses to the various aesthetic and symbolic values that a society evolves over time and which are mediated by language, rituals and traditions. To borrow terms from Masaud (1996), physical adaptation is the generator of *shelter*; social adaptation creates *habitat*; and from cultural adaptation emerges the *genius loci*. The *dahleez* of traditional Kuwaiti housing, the entrance vestibule illustrates these aspects of adaptation very well (see fig. 3.01).

Physical Adaptation:

At this level consideration is directed towards responding to the various external physical forces and elements of a particular place. These arrangements aim at maintaining a liveable balance between the human and nature's local characteristics. The result of these adaptive processes is the evolution of shelter, which is the expression of man's understanding of the local resources available in his/her particular environmental setting.

The *dahleez* was created as a space that offered visitors shade from the scorching daytime sunlight without admitting them into the private sanctum of the family house. Here too, people returning from the market place could put down their heavy items and rest their arms, or could wait to be seen by any household members.

Social Adaptation:

At this level the system of rules, norms and patterns of social behaviour, which could be seen as a conscious adaptation to the primary physical structure of the settlement (initially developed in response to the physical environment), inspire a deeper and more multi-functional use of the component of shelter. On this level the prime concern in directed towards establishing the relationship between the individual and his group so to maintain a sense of harmony and co-existence through these rules.

In the case of the *dahleez*, its co-option into social use also served to enrich neighbourhood ties, leading to the evolution of the society to which it was adapting. Large water jars and drinking cups came to be placed in the *dahleez*. This meant not only that visitors could feel free to quench their thirst immediately upon entering a house, thereby indicating the hospitality of the owner, but also that the person who delivered the water could enter and fill the water jar without disrupting the household privacy. Seats made this a place to rest and chat, gossip and socialise at day or night, especially for children. The *dahleez* became a place from which to watch the neighbourhood, as well as where people could hear of domestic news such as wedding celebrations, or births or deaths in the families. Therefore, what started out as an element for protection against the physical conditions was transformed into a popular social feature that responded to a range of needs, including privacy, personal space, territorial behaviour, ownership and community relationships.

Cultural Adaptation:

It is suggested that the embodiment of all values that emerged through both the social and physical adaptations is manifested in the cultural context. This is the media for abstraction of

those values and norms, which are the main subject of arts, symbolic rituals and the semantic structure of languages. This would suggest that cultural adaptation is holistic and therefore, could be seen as the actual interpretation of environmental and practical factors that are expressed in the more abstract forms and elevated style of art and architecture that define the Genius loci (Norberg-Schulz, 1984). A phenomenon that signifies this response to the totality of the environment is the collective cultural embodiment of values in the form aesthetic characteristics. In other words, what had once been negative aspects of the environment, to be avoided or protected against, become transformed into positive characteristics of place through the use of decoration, and become an architectural language, transmitted through the generations.

The *dahleez* therefore becomes highly decorated. It was traditional to put within it a cupboard displaying many household possessions and to include a comfortable seat covered in fine woven rugs. In this way, the *dahleez* became a room that gave a visual display that communicated messages about the house owner, his or her tastes and wealth. In transforming a physical necessity into a place of display, meaning and celebration, the *dahleez* therefore became a cultural artefact.

Another example of cultural adaptation is in the principle that building components are made from scarce materials. In a country such as Kuwait, all things afforded by the environment are characterised by their scarcity; timbers need to be imported from afar and the coral rocks that are the main building material for the walls need to be collected laboriously from the shoreline. As they themselves are painstakingly built up by living organisms, they too are treated with respect.

The principle of *al-loqata* (literally 'discarded materials') is that building materials should be recycled as much as possible. This not only assists in the environmental and economic burdens

imposed by construction but also connotes upon the materials a feeling of permanence; it gives them a sense of history and value extended in time.

As a result, the coral rocks are not cut to shape to form 'perfect' wall-planes but are assembled in the shapes in which they have been found. Also, the timber elements (*chandals*, see fig. 2.02) are not cut to the size of their current application but extend beyond the wall-plane. This not only presents the visual symbol that they are ready for re-use whenever this may be required of them, but has also become a main decorative element of indigenous Kuwaiti architecture. They are celebrated by the house-owner, being used as a perch for pigeons and as props from which flower baskets are frequently hung.

3.5 Symbols:

Symbols are descriptions not so much of the real object, but of the observer's image of the object, the emotional object. In *The Image of the City* (originally printed in 1960) Lynch (1966) hypothesises that an individual simplifies the complexity of the city by organising it in terms of paths, edges, districts, nodes and landmarks. Although Lynch recognised that the image was a compound of physical attributes and meaning, he deliberately chose to concentrate on the role of form, developing the hypothesis that an individual's knowledge of the city is a function of its imageability. This concept he defined as: "That quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, colour or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment". The image of such a place may not necessarily be connected or associated with its physical features. Such a transformation of a complex physical phenomenon in the mind of the individual into a condensed and highly personalised form is an example of a *symbol*.

Physical, visual form is thus identified or given meaning through some combination of functional, emotive and notional significance. Masaud (1996) suggests also that the social, cultural and symbolic values embedded in a place do much to guide its symbolic interpretation in the mind. For instance, when a person hears his village's name or sees its picture, what might come immediately to mind is thoughts of relatives, friends and neighbours, or the activities that were practised there. These thought, above physical images of the place, are evoked for the culturally shaped use of the place is more prominent than the place itself.

One significant point is that symbols are the products of the individual imagination. They have the property of being arbitrarily related to their reference (Noble *et al.* 1991). They enable people to make abstractions, prototypes and packages of vital information about the different things in the environment in an extremely economical way. For example, instead of thinking about how significant water is, a society comes to an agreement to symbolically consider water as a sacred entity or a taboo (Grynberg 1991).

The function of a symbol is to give communicable expression, verbal or non verbal, to socio-cultural concepts and knowledge. Symbols work on an unconscious level to keep people aware of their values and to guide their daily life.

A culture will consist of people who share an organised set (i.e. a system or schema) of symbols that has emerged from the mutual acceptance by people about the symbols and the values they convey. Symbols, as Rapoport (1970) states, help people to understand the world and to form it into a meaningful cultural pattern which is given physical embodiment through built form as well as being expressed through written records, graphic symbols, songs, myth and many other structures. This shared basis of understanding enables individuals within the culture to express highly sensitive and profound concepts to their colleagues, and to feel confident that the correct

meaning is being conveyed. On the other hand, the symbols that people choose to have around them may reflect their perceptions of who they are or who they aspire to be (Lang 1988).

People, therefore, live in a world of symbols and symbolic meanings imposed on reality by themselves. The system of symbols extend people's relations with the environment beyond the physical. For example when a Kuwaiti sees the wooden door of a traditional house, his perception not only includes basic information about concepts like door/window, wood/iron but also symbols related to identity, religion, history, man-woman relations, concepts of inside-outside, symbolic meanings and functions of a house, and so on. The associated meanings of the door together create a complex network of interconnected information. The decoration lavished on the door provides messages of wealth, especially considering that the rest of the external wall is bare of ornamentation. Because a large family tends to have a 'wicket' door (a small door set into the panel of a larger one; see fig. 2.03 in previous chapter), the status of the household is also expressed. At the door there is always a step-over threshold or a change of level, signifying that, upon entering the house, a person makes a transition from one behavioural milieu to another, and that different codes of activity, of noise, of conversation and of the physical scale of objects apply. The lintel of the traditional door was always at a level just below the eyes of the average person. This meant that the visitor needed to bow slightly upon entering, thus demonstrating respect and deference to the household and its members.

The above leads to the discussion of two important points:

- Every society has its own symbols that are not necessarily understood or accepted in other societies. This differentiation in symbolising the world might have several causes within the natural or man-made environment.

- In human societies symbolic meanings that represent the society as a whole are the more dominant even if some individualistic symbols have particular significance.

3.5.1 Symbols and the Environment

Barati (1997) suggests that holistic views of cultures and their symbolic values are more clearly observable in regions with extreme environmental and climatic conditions. He attributes this phenomenon to necessities for survival. It is quite possible that the basic problem in such regions is shortage of resources and the necessity is therefore for more overtly adaptive systems and a stronger expression of the inherent values. The longing for security and survival forces groups of people into more organised social communities. An isolated living unit is not sustainable in this context. The resulting compact settlement pattern also shows a kind of interpretation the society brings into itself from the universe. When the built environment is not relevant to the culture or that society's world view, new generations are deprived of a significant source of indigenous information and communication.

Societies can have vastly different interpretations of a similar phenomenon leading to completely different emotions and actions. Kuwaitis used to place green flags over the roofs of the houses as a sign to inform the neighbours that household members had set out on a pilgrimage to the holy places in Mecca, that they are happy for this occasion and wish them safe returns. This invited the whole neighbourhood to share in their joy and hope for their safe return, knowing the hardships the pilgrims faced in their sacred journey during the old times. Some families placed black flags upon the death of a member of the family, as a symbol of the need to be consoled by the neighbours and helped out with food clothing or other activities. Symbolic meanings act as a means for uniting people with people and unifying communities with the environment.

People, when thinking or talking about the world, do not have its physical elements in their heads. What they have in mind instead are the symbolic meanings of those elements, whatever they are. Alvesson (1991) argues that the 'positivist' and 'rationalist' approaches and theories that are often applied in the field of environmental development rarely consider the importance and influence of symbols and symbolic systems.

According to Paivio's dual-coding theory, symbolic representations of the world can be classified in two ways: non-verbal and verbal (Paivio quoted by Eysench *et. al*, 1994). In his opinion, non-verbal systems deal with 'image-based' information, whereas the verbal system is responsible for the presentation and structuring of linguistic information. There are also sub-systems (i.e. vision, audition, taste and smell) within the two systems.

A simple definition of the symbol is that it is something that, conventionally, by association or even accidentally, stands for something else (Burckhardt 1967; Noble *et al.*, 1991). The most significant point is that symbols are the production of human imagination. They have the property of being arbitrarily related to their reference. They enable people to make abstractions, to form prototypes and to package vital information about the different elements in the environment in an exceedingly economic way. For example, instead of thinking about how significant water is, a society comes to an agreement to symbolically consider water as a sacred entity or a taboo.

3.5.2 The Nature of Symbols:

According to Alvesson (1991), symbols can be defined as objects, acts, concepts, or linguistic formations that stand ambiguously for a multiplicity of disparate meanings, evoking sentiments and emotions and impelling people to action. A symbol is a 'reflection', in a lower order or

existence, of a perceived reality. In other words, a symbol implies a transition either to a new plane of being or to a new depth of consciousness, of what might very well be known in a different way.

The function of a symbol is to give communicable expression, verbal or non-verbal, to socio-cultural concepts and knowledge. Symbols work on an unconscious level to keep people aware of their values and make the daily life of individuals, as well as the society as a whole, possible through the creation of a *schema*. A symbolic schema includes the action of shared acceptance by people about the symbols, and the symbols themselves, and thus its continuity from one generation to the next is a guarantor for the society's sustainability. Symbols, as Rapoport (1970) states, help people not only to understand the world but also to form it into a meaningful cultural pattern. It is this pattern which is given physical embodiment through the built environment, as well as being expressed through written records, graphic symbols, songs, myths and many other structures. They also underpin the character and development of beliefs, philosophical systems and scientific knowledge (e.g. Grynberg 1991).

Symbolising the outside world influences the way people perceive it or interpret it. On the other hand, the symbols that people choose to have around them may reflect their perceptions of who they are or whom they aspire to be (Lang 1988). Therefore there is a tendency in society to symbolise everything and then react to the symbols as if they were the environmental stimuli (e.g. Rapoport 1973). In the progress of human society from caves to modern buildings, the symbolism of the early integration with the cosmos that is most evident in traditional indigenous architecture remains central and still activates the deepest levels of consciousness. This is a necessity of survival, for it is through symbolism that people consolidate and celebrate their integration into and attachment of the environment.

Alvesson (1991) argues that almost everything might function as a symbol so long as it signifies something wider or different from itself, and has meaning for a person or a group of people. For example meaning is often expressed through signs, materials, colours, shapes, sizes, furnishings or landscaping.

People may unconsciously like to live with others who belong to the same culture, to share with them their values, ideas and norms, also to understand and respond to the same symbols (Rapport, 1977). Such social contexts enforce the shared nature of their internal interpretations of the environment and of its qualities in terms of 'good' or 'bad'. It signifies also that society is much more than a collection of isolated people in a specific place but a functioning and purposeful unit bound together through and integrated with the environment its deeply held symbolic concepts. As a result of this unity, the continuation of human cultural life is made possible.

The schemas of symbols, especially when extended to the level of beliefs, values and myths, extend people-environment relations beyond the physical. So it is possible to say that symbolic concepts, involving cognitive activities, are important sources for, as well as reservoirs of, cultural knowledge and cultural communication. This is how people give meaning to the environment and see the world in different ways. Similarly this is the way a designer should define his task.

It is said that the higher levels of symbolic meanings are more determined by the culture than the concrete objective and physical details of the objects to which they pertain (Rapoport, 1973). Thus numerous fundamental symbols have accompanied societies over hundreds of years although there have been some vast changes in human life styles. It is important to state here that both communal and individual symbols are equally significant. The existence of diversified

symbols within the one culture achieves diversity within unity, a phenomenon vital for the evolution of culture.

The above leads to the discussion of two important points:

- Every society has its own symbols that are not necessarily understood or accepted in other societies. This differentiation in symbolising the world might have several causes within the natural or man-made environment; and
- In human societies symbolic meanings that represent the society as a whole are the more dominant even if some individualistic symbols have particular significance.

The second of the two above points suggests that people, their society and their environment, form one symbolic entity. When the symbolic meaning of their dwellings is reduced, as has happened in Kuwait City in the course of its modernisation and its wholesale transition into a prosperous centre of the global economy, the affinity of the people to their culture becomes lost. They and their children lose their culturally inherited knowledge for they have lost the means to pass them through symbolically meaningful environmental codification to subsequent generations or even among their contemporary society. Their subconscious forces are no longer agents of the physical contexts of their daily lives and they become passive and dissociated dwellers.

Oversimplified and reductionist approaches, particularly those applied in countries other than those of their origins, introduce a new symbolic schema which bears no connection to the evolutionary cultural processes of those countries, for at its base is its development in other environmental, historical and social context.

The symbolism of modernism is often perceived of as a kind of intellectual abstraction, which cannot be located beyond the visual language of the built environment. Since these symbols are universal in their denial of indigenous diversity, they intentionally offer no opportunity for local people to make reference to their own cultural values or traditional knowledge. A consequence has been that, aside from a select number of experts, nor have the people of the society at large been able to participate. In Kuwait, for instance, this situation has led to a kind of decision-making and implementation processes that lie almost entirely in the hands of large consultant firms from around the world. Within this administrative and planning model, local people have become almost totally excluded. In such a situation one may argue that the people-environment interrelation is damaged dramatically, for this interrelation is the product of the shared symbolic consciousness of all society, excludes the input from no individual, responds to the needs of all and represents their historic and inherited connection with that environment.

In other words, mind, built form and social meanings represent each other in a holistic context. Global symbolism, which ignores the locality and relativity of symbols, fails to create this wholeness and has led to a fragmentation in people-environment relationships.

3.5.3 Symbols in the Built Environment:

The role of symbols is to communicate the socio-cultural system and to give cues for appropriate behaviour. If one cannot communicate, one cannot relate and when differences among people become so great that symbols no longer have any common meaning then people begin to search for new symbols. The symbols not only relate people to people, people to things, and things to things, but also create a subjective unification of all these elements. Symbols in the built environment are also important in terms of establishing and reaffirming social identity so that

groups not only select different habitats but create them A significant role of such environmental symbols is to locate people in social space (Rapoport 1977).

One of the significant ideas about people-environment relationships sees the subjective environment as an influence on behaviour. In other words, it is the environment in the mind that is important. Since the built environment is the manifestation into object form of the subjective 'world' of symbols and values, it is located in the mind in the form of meanings and associations. There should therefore be congruence between the structure of the human mind and the structure of the environment and its contents, particularly in the way they are organised into meaningful, logical structures.

Symbols work both to identify the individual as a person unique among all others and also to combine social groups into units of persons who share similar worldviews. To Lang (1988), convention and conventionalised behaviour are in the nature of artefacts which become symbols with arbitrarily defined meaning. Yet Rapoport (1970) suggests that the symbols that people choose to have around them may, on the other hand, reflect their perceptions of who they are or who they aspire to be or may even reflect a rejection of the past, of traditions or of social norms. There is therefore a very close link between symbols and matters of identity.

The built environment generally consists of different materials that come in the form of patterns, lines and volumes and that can be observed in almost every context. These objects and the environment they compose are themselves meaningless unless the selection and combination of materials follows certain 'communicative' forms and patterns. What contributes to the diversity of environments all over the world are the local meanings which every society gives to material and physical features and which require the objects to be organised in a particular way. The thoughts associated with each of these environments also vary from group to group (Lang,

1988). Some aspects of space, for example, may not be visible until one has observed human behaviour (Hall, 1966). In the same manner as language, in any culture every unit can be identified only within its interrelational network with the whole built environment.

It is implicitly accepted that there is a link between behaviour and built form in two ways. Firstly, an understanding of the behaviour patterns, including motivations and feelings, is essential to the understanding of built form, since built form is the physical embodiment of these patterns; secondly, forms, once built, then affect behaviour and the way of life.

Each of these two aspects should be of great interest to all those concerned with the built environment. The question, in effect, and one which goes to the heart of the concerns of this thesis, is how changes in culture, expressed in behaviour, relate to changes in the physical environment. If changes in the environment are not the natural continuation of an existing situation, then the society faces the problem of becoming removed, at some deep level, from their built form. In other words, a contradiction has been made between the environment and the culture.

In traditional urban textures individual elements are united within the whole, which is the symbolic expression of the common and shared value. Each element has a strong role not only in the physical structure of the environment but also in the socio-cultural interpretation. One of the most powerful elements confirming this is the house, which must fulfil several key roles in social structures and relationships. In Kuwait for instance the house was always significant in facilitating social and religious rituals and ceremonies. The traditional house was the setting for wedding parties and funeral ceremonies. Relatives, friends and neighbours would participate in wedding preparations that could have started months beforehand. There were interchanges of social roles and ordinary people had the chance to take leadership roles in the management of

activities, decorations etc. Youths also saw the event as a chance to present themselves and their abilities.

Unfortunately the modernisation applied through urban development has failed to accommodate this network of continual interrelations. The innovation of building custom-made halls for wedding ceremonies has produced new forms of celebration which come down to sharing a meal, while this originally would have been only the culminating part of a whole social process. The active participation of people in a process of creation and unification with the time and space has changed dramatically into a their passive attendance at a pre-made dinner! This kind of replacement of the dynamic social and symbolic processes with a single event has reduced the many other associated events that traditionally strengthened cultural ties and social coherence. This also shows a level of ignorance of the value and significance of using the forms offered in the built environment to maintain existing cultural activities.

In many societies most daily life is still regarded as part of the ceremonial and ritual traditions and ways of living. This ritualistic approach to life gives a specific, symbolic meaning to the elements and spaces in the environment, hence the prevalence of the subject of ritual in people-environment studies. It leads to a complex conception of a place as the conveyor of many roles, some of which are obvious and visible, while others are not. The meaning of space, therefore, has an actual and possible symbolic sense. The beliefs, values and norms of a society must themselves be exercised in the real world. Thus the house in Kuwait not only is the place of daily life, but potentially it is a communal and sacred ceremonial space. Therefore, both rituals and spaces act to keep each other alive.

Recognisable symbols and meanings in the environment increase the sense of security and of one's own personal place within the environment. In the experience of an unfamiliar

environment, it is always necessary to gather and process a large amount of extraneous information. The processing of the extra information is probably one of the reasons of anxiety in people when faced with strange environments and illegible symbols. An indigenous people to built environment relationship is based on legibility, for the built forms have emerged from the symbolic understanding of the people rather than presenting new phenomena for them to interpret, thus reducing environmental contradictions and stress (Rapoport in Altman, 1980).

3.5.4 Verbal symbols

Language, as a symbolic system, and the environment are two integrated phenomena. It is not possible to imagine a language set apart from the environment it belongs to. Meaning is not something set apart from function, but is a most important aspect of function (Fuhrer, 1990). To find out what kind of function an element has in a given environment, one has to know about its deep meaning. One of the main resources for this kind of meaning is language because, as Culler argues (in Robey, 1976), language is an explicit representation of the people's implicit knowledge. The facts which linguistics must explain are various, but they are all facts about this implicit knowledge.

Although there is just one real word, languages create a variety of worlds by offering a variety of interpretations of that one world. Not only do they present linguistic patterns and contexts but also dissimilar cognitive worlds (Hall, 1973). The significance of language is that, according to Hall (1973), it enables one to understand, interpret and cope with all events in the environment. It also stores the deep meanings and values of environmental factors and transfers them from one generation to the next.

Using language to refer to the environment may seem to divide the environment into units expressed as words or phrases. However, when people refer to a simple object they also evoke the many associations and cultural symbols connected with the object and the word naming that object, as elements within the whole. In this way, language as an holistic structure, is a full and meaningful representation of the environment, another holistic structure in which no element is an isolated phenomenon. The principle of any whole is that it can be seen as being made up of parts, but all parts are deeply interconnected and related to the whole.

The problem that arises when the built environment no longer engages communities with their cultural or natural contexts lies in approaches that concentrate on the elements themselves as distinct objects rather than the process by which they are transformed into symbols and thus given meaning and value. The key benefit in verbal symbols is that they offer a quick route into understanding this process. Distinctions are first known; people describe the distinctions through language, and finally the distinctions are established through the act of creation. This is the interactive process of conceiving, naming and creating. It is the source, manifestation and the transmission of meaning. It is the process of encoding and decoding the environment and, at the same time, it transforms both the environment and the people's relationships with it.

Therefore language and environment are intimately related. Both express the cognitive process of making distinctions and both reflect the tendency of the human mind to understand and communicate with the outside world. Naming delineates the door and associates it with other elements, puts it into a whole, changing its relationship to the whole. It brings with it an entire understanding of the house as an holistic cultural artefact. Naming and building are therefore part of the same process.

3.5.5 Summary: Place and Dwelling:

To the French philosopher Gabriel Marcel (in Lincourt, 1999), place is a point of focus where people experience the meaningful events of their existences. It is incorporated into the structure of all human consciousness and experience. Places are basic elements in the ordering of our experiences of the world and the essence of place lies in their role as unselfconscious yet profound centres of human existence. He concludes that an individual is not distinct from his place; he is that place.

A place, to Edward Relph (1976), is "a whole phenomenon, consisting of the three intertwined elements of a specific landscape with both built and natural elements, a pattern of social activities that should be adapted to the advantages or virtues of a particular location, and a set of personal and shared meanings." Relph's idea of place is embedded in the concept of the architectural phenomenon and can be exposed by the reinterpretation of architecture as a system for the expression of symbols. A place is, Relph adds, a territory of meanings "what is received from a place includes pleasure or displeasure, loneliness or companionship, a sense of security and danger" (Relph in Seamon 1993, 34).

Architecture is concerned with existential meanings derived from natural and human phenomena, and manifested as order and character. Architecture translates meanings into spatial forms and therefore it ought to be understood in terms of meaningful, symbolic forms rather than in volumetric terms that can be removed from the culture that provides its meanings. Place means something more than location. It means having a spirit, a genius loci, and this presupposes an identification with the environment (Norberg-Schulz, 1984). Furthermore, to Norberg-Schulz, place is where man *dwells*. He explains that, in order to *dwell*, as opposed to merely exist, man must be able to concretise the world in the buildings and things that settle

within the existential, conceptual space that lies between heaven and earth, however these are interpreted by the culture.

Therefore, architectural artefacts are highly specialised and evolved artefacts that communicate the symbolic ability of humans to be in the world. A dwelling is therefore raised from the status of being a shelter to being a centre of action and intention. It is the focal point of the entire complex of symbols that guide social and cultural life. It is not only the place of daily actions but also the means by which individuals express their identity and their place in society. It is where families, the core of Islamic teaching and of Kuwaiti culture, is formed and nurtured. As has been described, the house is the locus of a range of features that express indigenous values and meanings, from the *dahleez* to the *mushrabiya* window screens. It is in this dense context of symbolic objects and meanings that the Kuwaiti family celebrates the main turning points of its members' lives – births, deaths and marriages. At its entrance is the space from where it communicates with the wider social group and in its core lies the private preserve of its household.

Cultures are driven by the need to develop a mode of comprehension that provides a metaphysical interpretation of life, an interpretation that goes beyond all external perception and the answers that they evolve define, identify and inspire the people. This interpretation affects most of their perceptions, mainly by locating individuals in the universe, because within structured space, man knows where he is; direction becomes meaningful. Originally this interpretation defines his awareness of cosmic space, as an externalisation of the macrocosmic creation which is similar to his own microcosmic self. Ancient people saw the universe as composed of a macrocosm and microcosm, each covering the three categories of body, soul and spirit (Ardalan, 1973).

Space and place are well connected, because the concept of place is composed of both the body and the spirit. Place does not have a tangible existence for it exists only in the consciousness. Man visually perceives the physical borders while his mind perceives the defined spirit within these borders. Besides the cosmic there are other considerations which dictate the role of space. The first of these is the climate, which (in the case of Kuwait) make the use of the courtyard very important for healthy living in a place that has been established in a hot and dry zone. The use of space came about as a result and reflection of man's sense and perception of this highly meaningful and social space.

3.6 Values and Meaning in Arab-Muslim Architecture:

When the Prophet Mohammed began his preaching in 610 AD, Mecca and Medina were small settlements. Nonetheless, it was from these early cities that a new religious and social order blew like a desert storm across the world and brought with it profound changes. Within only a few generations, Muslim armies conquered North Africa and the Middle East and penetrated deep into Europe and Asia. As early as the tenth century there were hospitals in Baghdad and most other Muslim cities. Medieval philosophers – such as Ibn Sina Abu Ali Al-Husayn, Al-Kindi Abu Yusuf, Al-Farabi Abu Nasr, and Al-Ghazali Abu Hamid Muhammad – had an intellectual influence that reached far beyond the Islamic world. These thinkers, and many others like them, studied the Oriental and Greco-Roman masters and attempted to integrate their teaching into Muslim thinking, struggling with the difficulty of reconciling theology with philosophy, revelation with rationalisation, spirituality with materiality (Flew 1984).

Beyond being a religion, Islam was, and continues to be, a pre-eminent force of social organisation. Its far-reaching contributions to architecture, mathematics, astronomy, chemistry,

poetry, music, and philosophy are indisputable (Glasse, 1991). It ensures the rights of all people to fulfil their desires for self-actualisation within their homes and their communities. In order to provide a full understanding of the theoretical assertions of this chapter, this section sets out to describe how they have come to be transformed into patterns of living under Islam. This demonstrates not only the relationship between individuals such that the phenomenon and tradition of the Arab-Muslim city came into being, but also has had massive consequences on the development of the traditional Arabic (and Kuwaiti) house. Islam enforces many constraints upon architecture, in, for example, its demands for privacy and for good neighbourhood behaviour. In many ways, it is the source of knowledge and intention that underlies the traditions of Kuwaiti architecture, from the scale of the individual housing unit up to the organisation and character of Kuwaiti City as a whole.

It is not possible to cover all aspects of Islam that impact upon architecture. The author recommends, however, that detailed and highly instructive information can be found in the works of Hakim (1988) and El-Kassar (2001). Those subjects that are looked at here are: rights of way; projections over the street; privacy (building heights and openings, roof-tops and the placement of doors within the street); ruins and buildings threatening collapse; and individuality and property.

This section therefore refers to the traditional form and physical patterns of the Arab-Muslim urban culture, how they came to be what they are and the reasons for their way of living and construction of their architecture; how did this process of transformation take place? The use of legal opinions and actual cases develops an image of how the incremental process of change worked within the Arab-Muslim society and within the conceptions held by its residents. The

intention is to show how these issues were conceived from a legal point of view and how they were treated within the actual context of the society.

Islam enshrines the values that define the uniqueness of the individual. Only when the distinct individuality of each person within a group is recognised can the right of each person to own things be enacted.

Some six thousand years ago, Mesopotamia saw the emergence of the first urban civilisation (Mumford 1961; Kostof 1991). To manage their commodities, the people living between the Tigris and Euphrates Rivers enacted a complex system of laws based on an enlarged understanding of the values of individuality and property, encompassing recorded knowledge, specialised economic activities, and real property (Attali 1988). Thus many thousands of years ago, it was realised that individuals conducting potentially incompatible activities in a compact urban environment required rules for arbitrating their spatial aspirations, and a codified system of territoriality. In Mesopotamia, not all activities were permitted in every place, and not all places could belong to everyone.

3.6.1 The Right of Way:

In the Arab-Muslim city, law distinguishes the public street, in which all people have the right of way, from the cul-de-sac lane (the *zuqaq*), which most jurists consider a private road appertaining only to those properties to which it gives access. The jurists did not only consider the streets as routes for movement but thought also about the way that they connected to the properties on each side. Therefore, a notion complementary to that of the street is that of the *fina'*, an open space that lies in the front of each building. This is taken to loosely belong to the

occupant on the condition that any actions he does there do not impair the functioning of the street.

Public streets were taken to be those which have an entrance at both ends; they are thus through-routes and those people who travel along them may not necessarily find their destination alongside these streets. The *zuqaq*, in contrast, being a cul-de-sac, is clearly understood to serve no traffic other than that pertaining directly to the properties along the side of the lanes. For this reason, both types of street were covered with different legal approaches.

Supervising and maintaining the public streets was the responsibility of the *muhtasib*. In detailing his obligations, the manuals specify that he must keep from the streets and *souqs* (which were often located along these routes), free of anything that may cause them to be dirty, or make them dark, or narrow. The manuals go even further and provide specific rules for maintaining the flanking buildings and for ensuring that goods available in the *souqs* were of adequate quality and that merchants were not abusing their position in the public road by, for example, overcharging for their wares or harming other traders. According to Ibn Al-Ukhuwwah (d. 1329 AD): "In narrow streets, traders must not set out seats or benches beyond the line of pillars supporting the roof of the *souq* so as to obstruct the way for passers-by. The planting of trees, and the building of *dakkah* [benches] are forbidden in the narrow streets, the way through the *souq* being common property through which the public has the right to pass. Rain water and mud must be swept away from the streets and it is the duty of the *muhtasibs* to compel people to take care of such matters" (Al-Hathloul, 1996).

The Prophet, on the authority of Ibn Wahb, set the minimum width of all streets at seven cubits in order to resolve any disputes concerning this. Ibn Kinanah states that people should base the

width of their roads and their *zuqaqs* on the highest and greatest thing that passes through them, in other words the heavily loaded camel.

In a more recent case, in 1845 in Cairo, M. Clerget relates that the width of a major street was determined by measuring the combined width of two loaded camels (Clerget 1934).

The *fina's*, the forecourts of buildings that look onto the public streets and the *zuqaqs* have been treated by the jurists as well as by the inhabitants of Arab-Muslim cities as semi-private, yet collectively-owned spaces. They are conceptualised as part of the surrounding properties or at least considered to belong to and to be susceptible to collective use by the residents of these properties.

Asked whether these spaces could be leased by the owners, the jurist Malik's response was that: "For spaces of small width, where the least thing posed would hinder the circulation, I think that no one has the right to reserve their use for himself, and that the authorities must intervene. But for those instances where the width is such that the circulation would not be hindered at all if the neighbouring owners utilise them for their own needs, I see no harm if the authorities do not intervene." Sharing the same opinion, Asbagh is reported to have said that these spaces, whether at the front or at the back, are part of the houses. "The owners should not be prevented from using them as long as the way is not narrowed, the circulation is not hindered, and no damage is caused to the public" (Al-Hathloul, 1996).

An illustration of the concept of the *fina'*, as elaborated by the jurists, is that, in a main thoroughfare, the *fina'* is the open land part near the house door. It should not extend to more than half of the width of the street. In lanes and cul-de-sacs the *fina'* covers the whole area abutting the house and it usually extends to the width of the whole lane.

This conception was maintained in all Arab-Muslim cities. In Medina in Saudi Arabia, the first Arab-Muslim city and founded by the Prophet (peace be upon Him), the *fina'* was used for activities related to domestic life as well as to the community. It was used for selling and for producing goods. Fig. 3.02 shows a small clothes shop utilising most of the *fina'* in the village of Hammamet, Tunisia. It is typical of Arab-Muslim cities that all shops within the old city use the frontage of the private homes of the shopkeepers as the places to exhibit and sell their goods. This causes most of the activities to take place within the street proper, which can be conceptualised as part of the shops.

Fig. 3.02: *Example of use of the fina'*

3.6.2 Projections over the Street:

Related to the concept of the *fina'* is the projection over the street. Projections and second floor rooms built over the streets (*sabaats;* see Chapter Two) are dominant features of Arab-Muslim cities. Their use has been in practice since early Islam and Muslim jurists have traditionally had no objection to such a practice as long as no harm was caused and the circulation was not hindered. Ibn Al-Rami states that, on the condition that no harm is made to any other person: "The parts that are fitted to the walls and project into the streets should not be prevented" (Al-Hathoulou, 1996).

The concept of the *fina'* relates closely to questions as to which house has the right to project on the street and to what extent. The jurist Ibn Shaban had the opinion that when the house's door opens on the street and the owner wants to build a projection, he should not be prevented, even if

his work takes up the entire street, since he preceded the others. However, if the issue of the right to build a projection were disputed among two neighbours, Ibn Shaban would then have the air rights over the street divided in half among them. This shows that, although the default priority to project on a street is for houses whose doors open onto it, this does not deny other abutting houses from having projections onto that street even if their doors do not open to it.

In relation to the building of a *sabaat* (a room bridging a street), the jurist Sahnun was asked whether or not an individual who owned two houses facing each other across a street, had the right to build a chamber on top of the street. He replied that: "He should not be prevented from doing so, unless he introduces into the street something that may narrow it or cause harm. Then he must be stopped. But for acts that cause no harm to either the street or to the public, he should not be prevented" (Al-Hathloul, 1996).

3.6.3 Privacy:

With the intensely close family life and the strictly followed code of conduct of Muslims, it is not unusual to have the privacy issue come under the purview of the jurists. For a neighbour to be able to see more than that which a passer-by would see in a house is looked upon as an intrusion into the private life of the household, intolerable to residents and to the jurists. Such an act is considered to cause great harm and damage, and Islam insists on the removal of any cause of harm or damage.

The concern for privacy was reflected in the traditional physical form of the city in several ways. Building heights throughout the city were limited, windows on the street were avoided or architectural treated to shield them offering a direct view of the home, and the placement of doors within the street was closely considered with respect to the neighbours' existing doors.

Restriction on building heights did not prevail in early Arab-Muslim cities. When asked whether an individual could raise his edifice higher than that of his neighbour and thus be able to look into the neighbour's house, Ibn Al-Qasim stated that: "One has the right to raise his edifice, but I heard Malik say that he should be prevented from inflicting damage" (Al-Hathloul, 1996). Intrusion into the private life of the residents is considered to be a great damage, since the residents would not be able to operate peaceful lives is they felt they were under the constant view of others.

To begin, with the highest point in the city is the minaret. Although it serves a very basic religious function, this did not exclude it from being looked on as a place from which the muezzin, who is expected to be a pious man, could look into the surrounding houses. The Umayyad Caliph Suleiman Al-Malik (d. 717AD), while en route to Mecca for pilgrimage, resided at the house of Marwan at the south-western corner of the Mosque of the Prophet. When the muezzin ascended the minaret situated at that corner to call for prayer, the Caliph came under his view. The Caliph then ordered the minaret to be demolished and brought level to the roof of the Mosque.

Similarly, openings that overlook other houses have always been condemned. Any window from which a man could see into the neighbouring house was ordered to be sealed. To determine whether a window overlooked its neighbours, the lawyer Umar Al-Khattab stated that the window could be kept only if one could not see into the house when ascending on a bedstead placed behind the window (Al-Hathloul, 1996).

Another potential route of intrusion into neighbouring houses is by way of the rooftop, from which other buildings come under the view of the user. Since most Arab-Muslim cities experience an arid climate, roofs serve basic social and domestic functions during the summer.

They are usually used for living and sleeping during the night, especially in urban areas where large open yards rarely exist. In order to protect the privacy of neighbouring houses, it was decided that roofs could not be used unless they were surrounded by parapet walls.

Most traditional jurists expressly forbid the opening of a door in front of another door or near it within a *zuqaq*. The reason given by Ibn Al-Qasim was that the neighbour who owns the existing door has the right to say: "I benefit from the place in front of my door in which you want to open yours. I open my door with no one intervening on my privacy, and I bring my loads near my door without causing inconvenience to anyone. Thus, I wouldn't let you open a door in front of mine or near to it since you may use it as a reception and entertainment area or for comparable matters" (Al-Hathloul, 1996).

However, in a public street, Ibn Al-Qasim allowed the owner to open his door wherever he wished, although this goes against the opinion of the jurist Malik (as recorded by Ashhab). Asked about a public street in which an individual wanted to open a door across from an existing one, Malik replied that, if this causes the owner of the existing door harm or allows the person using the new door to see what is behind the existing door, he should be prevented from opening it. Sahnun goes further to say that: "One must place his door at least one or two cubits from the facing door", even across a wide and busy street (Al-Hathloul, 1996).

The issue of privacy is one of the most sensitive ones to the residents of Arab-Muslim cities. The necessity of preventing someone from behaving as he wished upon his own property in order not to be able to look into the houses of others is sufficient to show the importance of maintaining privacy in the life of Muslim citizens. Throughout all building activities, Islamic law always guarantees the right of the citizens to privacy. In most instances, it works on a 'first-come first-

served' basis in which earlier actions have the right to continue and are protected from being either violated or withdrawn by later actions.

The concern for privacy substantially affected, but not limited, the urban form. By observing the traditional neighbourhoods of Medina, one finds that building heights are always similar. They all fall within the category of either two, three or four stories buildings, and it is very rare to find a mix of different heights within one district. On the rare occasions when this does occur, care is usually taken to avoid openings that will cause harm or damage to the neighbours.

3.6.4 Ruins and Buildings threatening collapse:

Concern for walls or buildings threatening collapse is rooted in the theme of harm that is so central to the opinions of the Muslim jurists. The jurists were not concerned for the property itself but for the safety of the people, including the owner and for the damage that might be caused to the property of others. These cases were looked at by the jurists on two levels: first, those cases of walls incapable of making appropriate repairs; and secondly, cases of decaying buildings which proved harmful to the community if left the way they were.

3.7 Conclusion:

There are two important points that should be considered in any planning and design development that seeks to follow a cultural interpretation. Firstly, language is one of the most significant sources of knowledge about what an element is and how it is supposed to be used. In language lies its deeper meaning and significance and values as part of a whole set of cultural notions. Secondly, if it is to be meaningful, understandable, and communicable among the resident community, every development in the built environment should be linked to the existing

language. To have a sustainable cultural environment any new idea will be welcomed and absorbed if it can take root not only in the indigenous built environment but also in the existing symbolic systems, (including the pattern of the language). The result would then be sustained homogeneous physical and symbolic contribution to an evolving environment.

Architecture must also recognise the following insights on symbols:

- Symbols and symbolic meanings are the basis of wholeness in the environment;
- Unity in the environment and the process of unification of the environmental ingredients is possible because symbolic systems, symbolic meanings, and symbolic objectives are at work;
- Without meanings and symbols there is no full understanding of the environment. The people will be passive instead of active in their relationship to the environment. There also will be no learning;
- The result of a lack of communication between people and their environment will be a process of mutual destruction;
- Culture cannot exist not can human societies experience continuity without symbols and meanings that are specific to place;
- The environmental structure should be congruent with the structure of people's minds. Since people's mind structure is built up of meanings and symbols, the built environment must reflect this symbolic system;
- The symbols and meanings indicate what people are, not who they want to be;
- Symbols make economic understanding of the environment possible;

- Unification between symbols, meanings and the built environment leads to unification between people with time and place; and, finally,
- Symbols lead to value awareness in the society

The ideas and concepts outlined by this chapter indicate a theoretical basis for the awareness that each society has its own character and attitudes that it are passed on to following generations as traditions and laws. It is these that individuals, planners and designers must abide by or the culture in which they are active will be diminished by their actions. The architecture, planning and evolution of cities is a means for expressing unique human values and modes of behaviour within and inspired by the outer environment.

What is observed nowadays is a form of modernisation that seeks the destruction of these concepts in the name of development. In its drive to universalise the shapes, specifications and materials of buildings and the needs of individuals worldwide it imposes a massive disruption between the human emotions and the built forms that accommodate people. It opens the door to many problems and dissatisfactions, for colours and elements all have highly specific and profound meanings to all nations and cultural groups.

Indigenous architecture at every stage of its evolution does much more than to mediate between the people, their needs and the difficulties presented by the natural environment. It expresses ways in which people transform the environment, even one of the greatest harshness, into a positive source of materials and opportunities, into something to be celebrated. By doing so, it can be summed up as the creation of 'place' where only space previously existed. And such place is not merely a vessel for architecture, a spatial volume to be filled with features and

actions; it is a cosmological place, given structure through language and through the use of non-verbal symbols. It is a place that the celebratory aspects of cultural adaptation has given meaning and orientation, not only upon this earth but within the universe of the imagination and the universe of deeply-held and highly abstracted religious belief structures.

For example, in Arab-Muslim societies, privacy has a great importance and is the foundation for the planning concept of the ideal home. It is not, however, looked upon as a tiresome architectural difficulty that needs to be overcome with whatever cunning the architect can muster. It is preserved instead as a beautiful value, the satisfaction of which a whole tradition of house and city planning provides many extremely evolved and specialised solutions. It is essential that the new generation of planners and designers pay respect to these traditions in order to allow the architecture of the future to continue to meet and satisfy people's deep needs.

PART THREE

SURVEY ANALYSIS

PART THREE

CHAPTER FOUR

PILING ANALYSIS

Chapter 4: Piling Analysis

4.1 Introduction:

Fieldwork, surveys and data analysis are fundamental elements in most social science research. In general, data are obtained when the researcher records his observations about phenomena being studied. However, not all phenomena are accessible to the investigator's direct observation. Therefore the data were collected by directly approaching a number of people who have had a living experience of these phenomena. The obtained responses established the data upon which the finding of this study is based. To achieve maximum possible information, this study has implemented the questionnaire technique.

Part Three of the thesis reports on the collection of data through a field survey and analysis of the findings according to the objectives of the research. The information was elicited through presenting to people who have experienced many phenomena associated with the changes in Kuwait City over the recent decades direct questions. It asks them to reflect on these experiences. Part Three therefore aims to measure the extent to which people are disappointed or satisfied by the massive modernisation that has taken place in their lifetimes and in their communities.

The author and his supervisor, Dr. Faozi Ujam, designed a questionnaire that would help the author to meet these major goals and objectives. In order to investigate people's attitude towards their built environment, an open-ended questionnaire is used to explore how people perceive their city and their wider social and physical environment. This questionnaire contains 40 questions and, in order to achieve greatest clarity and simplicity, it was presented in both Arabic and English. The questions were arranged into groups as follows:

A. Personal data (information);

B. Questions about Kuwait City;

C. Questions about the neighbourhood;

D. Questions about the dwelling unit; and

E. Questions about cultural value.

For the analysis that is covered in this and the following two chapters, the survey questions are reviewed using a range of techniques. In this chapter, Piling Analysis, the author reflects, using his own knowledge of Kuwait City and ideas distilled from the preceding theoretical discussions, on the responses given to the open-ended questions. Thereafter he classifies the responses into *categories* (objects, activities and adjectives), which shed light on the extent to which people structure aspects of the city in terms of physical, temporal or symbolic phenomena. This is followed by *correlations* between certain answers and, finally, an exploration into the *dimensions* that analysis reveals as underlying more commonly stated city preferences but which may not be so evident at the first glance. The intention is to highlight the importance of indigenous architecture in the subconscious minds of the people who live in Kuwait City. The final outcome of the different relationships between these categories aims to create an image of the people's relationship with their environment in order to enable the author to formulate a discourse for indigenous architect in Kuwait.

4.2 The Questionnaire:

The author has selected a type of questionnaire that is widely used by researchers into aspects of environmental design. Its main part consisted of a set of open-ended questions that investigate into people's attitudes toward their built environment. The understanding behind this is that the most important findings would be those that relate to people's perceptions of everyday experiences, rather than a more empirical study into the nature of existing and traditional architecture. In the process salient aspects emerged from the analysis which bear a strong relation to and the way people over time came to adapt to the environment dealt with its impacts.

The survey questions can be classified into two general categories: *factual* questions and *opinion*

and attitude questions. As far as the study is concerned, these two categories of questions are designed to elicit respectively objective and subjective information from the respondents. The opinion and attitude questions ask about the built environment on the levels of: city, neighbourhood and dwelling unit, and invite people to consider their physical and psychological needs beside the social, cultural and religious values.

4.3 The Sample:

One of the issues in any survey procedure is determining the dispersal and size of the sample involved in the survey. The nature and the aims of this study and the quantitative nature of questionnaire do not require a large sample. However, out of the eighty-five questionnaires distributed among the citizens, thirty-seven responses were returned, but three of these were not completed. Therefore, the survey is based on thirty-four (34) completed questionnaires. With respect to the size of the sample, this number is accepted for the purpose of producing information and insights on people's realisation and observation of the subjects involved.

All respondents were people whom the author knew to have had some personal involvement in the building trade in Kuwait City or other crafts prior to the changes of the last few decades. The reason for this selection was that the author wished to derive information based on a deep and active engagement with Kuwaiti culture. Such input is intended to make the greatest contribution to one of the main objectives of this research, which is to compile a documentary archive of an urban culture that has been all but lost.

The area of the author's investigations is focused on the city of Kuwait, a city well known to the author and which contains both traditional and modern architectural styles. As a result the inhabitants have all had personal experience of the difference between the two, which provokes a variety of issues and preferences that not only enrich the responses but also contribute directly to the objectives of this research. Another reason for the selection of Kuwait City is that rapid development has brought problems, which have been keenly felt throughout this capital city, as

are discussed in the Introductory and First Chapters. It is hoped therefore, that the survey will provide clear and concrete information to underpin the theoretical and background discussions so far undertaken.

The study samples were drawn from eight major districts in the city: *Al-Sharq, Al-Wosta, Jibla, Dasman, Murghab, Al-Seef, Souq Al-Bshoot, Al-Salehia* (see fig. 4.01).

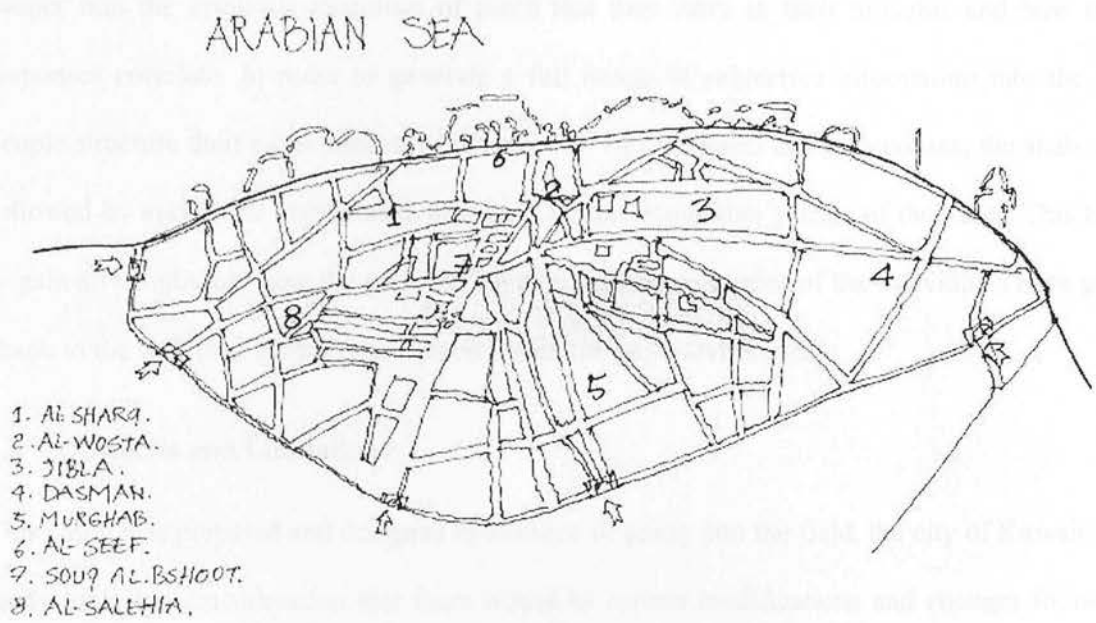


Fig. 4.01: Map of Kuwait City

The first four parts include twenty-nine open-ended questions. In order to achieve a wide range of responses, the questions did not concentrate only the built structure of the town but also about areas, quality, characters, social and cultural issues. For a comprehensive assessment it is important to observe all these different aspects as interrelated in the built environment. Most questions asked for two to three different reasons as to why people stated an appreciation for any aspect of their built environment, and provided space for any further explanations. The answers typically assigned preferences in order to determine attitudes in the view of an individual. The intention was that these questions should stimulate informative responses about people's needs and desires, as well as their cultural, social tendencies and other characteristics that are important in their lives. The respondents varied according to their age, sex, places of residence within

Kuwait City and length of residence, in order to avoid bias in the sample.

It is understood that the responses received are in the form of qualitative data. Therefore, the analysis is not in the form of standard statistical tests. Instead, it is based on the author's personal interpretation of the responses. The ultimate goal of this, and the final component in the analysis is to shed light on any dimensions that are shared by the responses. These make it possible to go deeper into the symbolic meanings of place that they carry in their thoughts and how these responses correlate. In order to generate a full image of subjective information into the way people structure their environment, which may not be mentioned in the responses, the analysis is followed by asking the respondents to supply sketch ('cognitive') maps of their city. This helps to gain an insight into how the personal experiences and memories of the individuals have given shape to the way they identify their place within the built environment.

4.4 Obstacles and Limitations

This study was prepared and designed in advance of going into the field, the city of Kuwait. The study took into consideration that there would be certain modifications and changes following the first visit to the city when the actual situation is examined. This proved to be true at the beginning of the application of the study and distribution of the questionnaire. In this respect, the study faced certain obstacles during the period of its application as follows:

- *Obstacles related to the respondents*. Although some responses were very well written and completed, many people whom the author had approached did not return the questionnaire while others returned it incomplete. A number of respondents said that they would send the questionnaires by post, which never happened; and
- *Limitations related to the questionnaire itself.* Some people were unable to complete all the answers while others only answered specific questions and left out the rest. They either did not understand these questions or had no time to spend in addressing questions on issues

which need a certain degree of work and input.

4.5 Compilation of the Responses:

This part of the survey study reviews the results of the questionnaire. Each question is taken separately and briefly considered in light of all the responses given by the thirty-four citizens who completed the survey.

In order to sum up the information given to the twenty-nine open-ended questions, tables are used to show the number of times responses were repeated by the 34 respondents. By this method of compilation it is possible to later divide the responses into the three categories of objects, activities and adjectives. The final outcome of the different relationships between these categories creates a visible image of the people's relationship with their environment.

4.5.1 Part (A): Personal Information:

Age:

In the table below the respondents are shown grouped into four different age groups: under 18 years old; between 19 and 35 years old; between 36 and 55 years old; and 56 and over.

Age	Under 18	19-35	36-55	56 and over	Total
Number	2	11	12	9	34

Gender:

The sex distribution in this survey was 19 male and 15 female persons, as shown in the table below:

Sex	Male	Female	Total
Number	19	15	34

Occupation:

A wide variety of occupations is covered by the respondents. In order to simplify the results, the occupations are here grouped into general categories, as shown in the table below. One group

concerns students or those taking part in any kind of education; another group consists of government staff; self employed people; housewives and, finally, retired people:

Work	Student	Gov. staff	Self-empl.	H. wife	Retired	Total
Number	2	14	6	4	8	34

Place of Living:

The sample covered nearly every residential district of Kuwait City. The areas where people involved in the survey live are shown in the table below:

Place	Al-Sharq	Al-Wosta	Jibla	Dasman	Murghab	Al-Seef	Al-Bashoot	Al-Salhia	Al-Suwaber	Total
No.	10	5	4	1	3	3	3	2	3	34

Kuwait City is a polynuclear settlement, composed of various sub-regions based originally on tribal groups or on particular trades. The following descriptions of their characteristics are based on the author's experience of the city.

Al-Sharq is the main commercial centre of the city. Its name derives from the Arabic for 'the east'. It is a coastal area and from here the fishing fleet would set out, travelling eastwards into the Gulf. It is still mainly occupied by fishermen and craftsmen and the author too lives in this district. It has a mixed ethnic culture of Arabs and Iranians and, as a crowded centre that contains the main souq and working areas, is considered as the city centre.

Al-Wosta gets its name from the Arabic word for 'middle'. It is an area of low density, with a small population. It contains many small shops and religious buildings such as mosques and *madrasas* (religious colleges). It is considered an area with a high standard of living and occupied mostly by the high-middle classes.

Jibla takes its name from the Kuwaiti dialect word for *Qibla*, the direction towards the Holy Ka'aba in Mecca towards which all Muslims pray five times daily. In Kuwait, this is to the west. This is a rich area of businessmen, merchants, pearl-traders and ship-owners. In Ottoman times, 900 ships were registered here. The people who live here are almost exclusively Arabian.

Dasman is the place where the royal family has its Palace.

Murghab is an area lived in by farmers and shepherds. From here they have access to routes that lead into the desert. The buildings are typically large, up to two storeys, and widely spread out. The people who live here are generally Arabs from long-established families.

Al-Seef is the port area (*seef* means 'coastline'). Goods, especially construction materials were imported into this area and it is characterised by having many small ports for *dhows*. Each port related to one owner. It is mainly populated by people who, on account of their trading background, live in *amairs*, buildings that are part shops and part houses. The residents are mainly middle-class Iranians.

Al-Bashoot is an area where the tailors of men's clothes (but not shoes) live. This tradition goes back many centuries. It lies in the centre of Kuwait City today and is frequented by all, even outsiders. It offers them a lot of male-only cafés, resting places and music clubs that close at 7:00 pm. It is currently being renovated by the government using new buildings with an 'old flavour' but still lacks a meaningful indigenous spirit.

Al-Salhia is the trading centre for the upper-classes. Here the shops sell fashion accessories, perfume and jewellery. It has many offices and international hotel chains (such as the Sheraton and the Meridian). It has few residents and is almost entirely composed of modern buildings.

Al-Suwater is the low-class district of craftsmen and sits outside the commercial zone. Its name derives from the Arabic *suber*, meaning 'patient'. Populated by mostly Arab Shi'ites and Jews (it contains the Israeli School), it is a densely built area of small houses. The people here are often ostracised for their Shi'a background.

Length of stay:

The table below shows the number of persons classified according to their length of residence:

Length of Stay	Up to 10 years	10-25 years	Over 25 years	Total
Number	19	10	5	34

In summary, the personal information of the respondents indicates that they are adults, well-educated and most of them have lived in the city for a long time. Also, their knowledge of Kuwait City covers every single part of the city and most of them have experienced its recent change into an international and economically hugely wealthy city.

4.5.2 Part (B): Questions about Kuwait City:

Q(1): Mention 3 most important places which give Kuwait City its character and give 2 reasons for each.

No	Places	Freq.	Reasons	Freq.	Total
1.	Souq Al-Sharq	25	Shopping Cultural Dimension Important Heritage Social Activities Good Climate	20 15 15 11 10	71
2.	Souq Al-Bashoot	23	Cultural dimension Shopping Important Heritage Good Climate Meet People	25 22 21 20 5	93
3.	Kuwait Tower	19	Landmark Green Area Children Play Good Location Modern Tourism	10 10 18 20 15 16	89
4.	Dasman	10	Important Heritage Cultural Dimension Good Location	8 6 3	17
5.	Al-Shamlan Sea Port	8	Important Heritage Cultural Dimension Viewing Tourist	6 7 5 3	21
6.	Liberation Tower	5	Land Mark Tourist Good Location	7 2 1	10
	Total				301

In most answers to this question, shopping centres take the first two places in importance. This refers to many reasons, first because of the beauty and the variety of the shops and goods; secondly because covered shopping centres make the shopping experience a perfect escape from

harsh environment. To visit a souq is also to have all ones senses engaged in the environment – the smell of food, the visual excitement of the goods on display, the noises of vendors advertising their prices and the constant 'buzz' of the social gatherings offer a comprehensive entertainment for the mind. Both souqs mentioned offer car-free pedestrian environments with plants, cafés and a diverse mix of peoples. It could be said that without the souq, there is no Arab country. These places represent the 'elevation' of the Arabic city, where so much else is hidden from view. Aside from the entrance gates, the main squares, the minarets and domes of the mosques and the royal palaces, they are the only places where the city culture is actively *shown* to the people, residents and visitors. In the souq, everything is open and the finest craftsmen are happy to engage in conversations about their methods and their goods.

Specific reasons given for visiting the souqs were to go in the morning to buy food (when it is freshest and not spoiled by the heat of the day), and to go in the evening for entertainment. In the morning, people said they found the souqs quiet and 'fast'; in the evenings they found them to be filled with the noise of bargaining and more crowded.

The souq is also a place where the respondents go to investigate. Much produce from around the world is available here and it is a delightful habit for people to scour the souqs in the search for what is new. The respondents also indicated that the souq was the best place to meet friends, or that they considered the shopkeepers to be friends and enjoyed exchanging information and ideas with them. They also spoke nostalgically of the smell of herbs (mint, pepper, cinnamon and garlic) and of the noise of the brassworks and smithies.

Souq Al-Bashoot still represents the traditional commercial centre for men's clothing and the related industry. It is distinguished by its covered markets, which are full of activities, social life and meetings with friends. Usually these types of markets provide good protection from the sun's heat and the harsh climate; therefore, people enjoy the shopping and social life there. Souq Al-Bashoot also benefits from having a good location and beautiful architectural details that

increase its importance and beauty in the townscape.

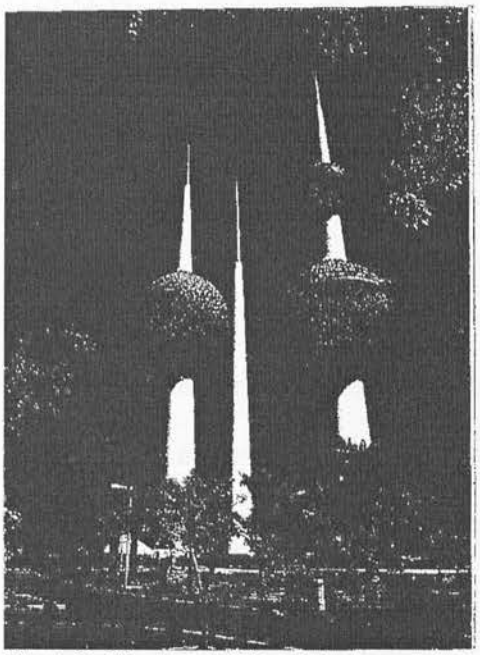


Fig. 4.02: The Kuwaiti Water Towers

The Kuwait Water Towers is a most attractive landmark and is situated by the beach. It includes a wide public garden (which is usually used as a place of gathering in the festival times, feasts and so on), wide streets and open beach. People are attracted to the Tower mainly because it provides green areas, entertainment places where people can meet, talk and enjoy themselves. The landscape about it offers an aquapark for the whole family, including swimming pools, waterslides and boating. The towers themselves function not only as raised reservoirs that serve the entire city but as a folly and a revolving restaurant that is open until late at night and includes a cabaret show.

Q (2): Mention 3 most important open areas you most like in Kuwait and give 2 reasons for each.

No	Areas	Freq.	Reasons	Freq.	Total
1.	Sea Side	25	Moderate Climate Sport Activity Viewing Tourist Meeting People	15 10 7 7 10	49
2.	Souq Al-Bashoot	20	Commercial Centre Social Activities Historical Place	20 15 15	50
3.	Seef Palace	18	Presidential Palace Cultural Dimensions Important Heritage Good Location Educational Place	10 2 15 10 3	40
4.	Al-Shamlan Sea Port	17	Important Heritage Cultural Dimension Viewing	10 5 3	

			Tourist	2	20
5.	Souq Al-Hareem	15	Commercial Centre Traditional Style	8 10	18
6.	Al-Jahra Gate	5	Historical Place Tourist Educational Place	5 5 10	20
	Total				**197**

Overall, and from a surface reading of the answers, what typifies the places mentioned is that they provide comfort, relaxation and satisfy aesthetic needs. At the same time these places usually contain many social features. For example a person goes to the market not necessarily to buy something because the market is a place where people gather and chat with one another.

The Seashore, especially at Al-Shamlan Port, was the gateway from Kuwait City to the world. No access was available across the desert, a place of dangerous animals, marauding tribes and drought. The Port of this seafaring nation was traditionally filled with life. People would go there for pearl diving, setting out on excursions that might last several weeks. From the day they were supposed to return, the whole family would sit by the port, praying and singing for the sea to return their husband or father to them. This has left Al-Shamlan Port with a powerful feeling as a place of occasion and ceremony.

Al-Seef Palace has a significant role in the daily life of Kuwait City. Here is where the ruler, the Amir of Kuwait, lives, and yet he is not separated from the citizens. He prays with them, rewards them personally and has the power to mediate on the behalf of any person for whom the normal courses of law do not meet needs. The Palace, built in a sophisticated Iranian style from 1920, is also considered to be very old, as it predates much of existing Kuwait.

Q (3): Mention 3 most important features you most like in Kuwait, give 2 reasons for each.

No.	Features	Freq.	Reasons	Freq.	Total
1.	Souq Al-Sharq	21	Shopping Good Climate	10 9	

			Meeting People Water Good Location Viewing	3 4 2 2	30
2.	Grand Mosque	19	Big Building Religious Motive Spiritual Symbol Social Activities	6 5 4 3	18
3.	Flag Square	18	Cultural Centre Meeting People National Heritage Entertainment Reason Wide Spaces Good Sight	10 7 6 5 4 3	35
4.	Seafarer's Village	10	Entertainment Reason Meeting People Heritage Good Climate Safe Place	16 5 5 2 2	30
5.	Port	8	Historical Elements Archaeological Heritage Focal Point	10 10 8	28
6.	Liberation Tower	7	Symbol of Technology Focal Point Modern Style Commercial Centre Services Available	7 6 5 4 3	25
	Total				166

When asking about the most important features in the city, the most frequently mentioned was the Souq Al-Sharq, one of its most distinguished shopping areas. Architecturally, the souq joins the sea to the land at the big, covered market place by being built out into the water and embracing a huge marina as though it were a harbour wall. It is lit up at night, and its reflection on the water enhances its architectural character. Access to the souq is across one of several bridges, giving also the feeling that one has left Kuwait and is on a boat or another island. From the arcade that stretches along its length, and which is the location for many cafés, lead piers on which people can be seen fishing.

The Mediterranean-style bricks are the same as those used in the nearby Palace of the Amir. Another prominent feature is the use of *badgeers* (windcatchers), which take the form of

enormous towers crowned with structures that are open to the air. They are used to hide air-conditioning machinery and water-tanks.

The Grand Mosque, built in 1985, is probably the largest mosque in the region. It is a very severe concrete building that is not much appreciated by the general public. Aside from its size, which makes it a very obvious feature in the city, the respondents made no comment about its architecture (see fig. 4.03).

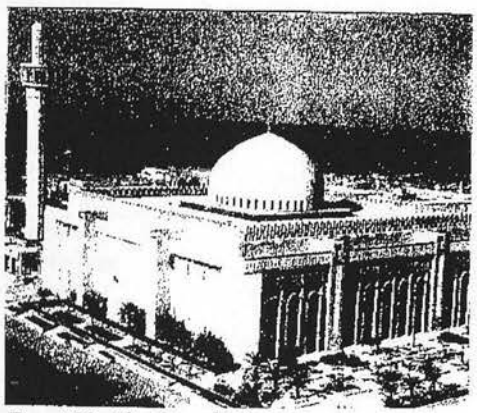


Fig. 4.03: The Grand Mosque

Flag Square is an open space, and, as such, very important for society. Each type of open space serves a different need; in this case Flag Square serves an entertainment place, a place for meeting people, to celebrate National Heritage with displays of sword-dancing and communal singing and dancing ceremonies. All neighbourhoods direct towards Flag Square, integrating it into all parts of the city. It functions too as a political centre, a natural stage for executions, popular demonstrations and, upon the arrival of large *caravans* from the desert, a place for special merchant occasions. Its use is therefore not constant but it is essential to Kuwaiti life. Above all, it known to be a safe place to go to.

The Seafarer's Village is an area that has been completely rebuilt as a demonstration of 'old buildings'. Its use is intended as a museum and a place of entertainment. The author regrets that it has been reconstructed very much as a superficial stage-set. Its buildings are often little more than a frontage and many of the materials are faked

Q (4): Mention 3 things you most liked about old Kuwait City and give 2 reasons for each.

No.	Things	Freq.	Reasons	Freq.	Total
1.	Compact Planning	30	Strengthen the Social Relation	25	
			Enhance Safety	15	
			Create Sense of Belonging	10	

			Good Climate	10	60
2.	The Making of *Dhows*	28	Traditional Technicality Natural Material Aesthetic and Beautiful Products Traditional Goods The Way of Trading	10 5 20 10 10	55
3.	Neighbourhood	25	Good Climate Social Activities Safe Place In Human Scale Provide Privacy	8 7 5 4 6	30
4.	Bench	20	Good Climate Social Activities Traditional	10 8 7	25
5.	Narrow Street	8	Good Climate Social Activities Safe Place In Human Scale	5 8 4 3	18
6.	Handicrafts	5	Beautiful Crafts and Products Commercial Goods Traditional Works Heritage	6 2 3 2	12
	Total				200

These answers indicate that the attachment that people had to their traditional architecture relates to how it satisfied their sense of history and way of living. Their indigenous architecture was naturally adapted to the climate in design and construction materials. In its development it manifested improvements in their conditions through time and their social and cultural life. To the respondents, the city offered a true picture of their everyday life and their adaptation with the harsh

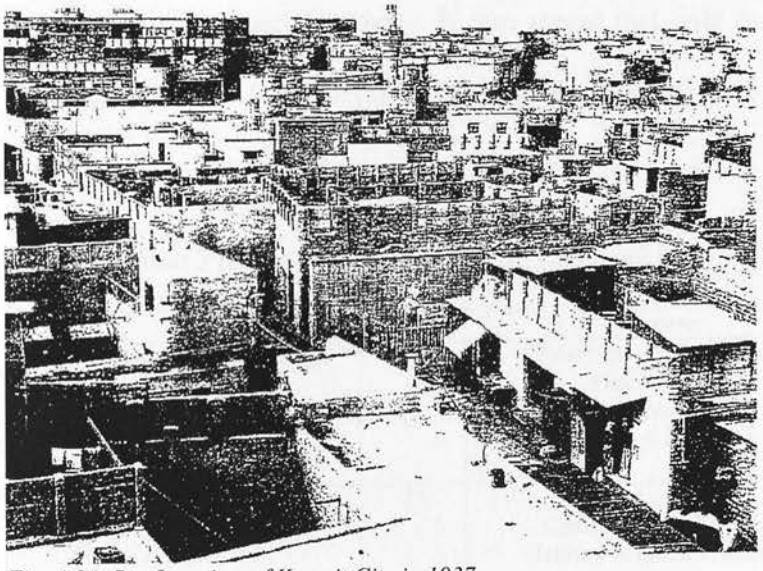


Fig. 4.04: Rooftop view of Kuwait City in 1937

environment, producing an urban fabric of narrow, winding streets and compact buildings.

This compactness of the city structure enhanced the social relation between the residents. All the common activities were experienced in the public squares and streets, making the people of the quarter one tightly integrated social unit that shared many aspects of life.

It is significant that the reasons people gave included *society*, *safety* and *belonging*. These are three interpretations of the same powerful need for social coherence. By building in a compact manner, happiness and sadness at family event and neighbourhood news was spread rapidly. Visitors were often shared among different households, such that if one person were not at home, the visitor would call on the neighbouring house. The houses along each *zuqaq* (narrow cul-de-sac) often belonged to people from one extended family, closed off from the public streets at sunset by a gate. These *zuqaqs* therefore represented entire communities, uniting the old and the young. Children could feel free to play in the shaded routes and it was a social occasion for all menfolk of the *zuqaq* to go along their alley five times a day for prayers.

Physically, compactness offered a range of other benefits. To visit ones neighbour it was possible to walk along the rooftops. The knowledge that your building touched that of another gave a sense of material security. It also meant that only one wall for each house was free-standing. All others were supported by neighbouring properties.

Q (5): Mention 3 things you most like in new city and give 2 reasons for each.

No.	Things	Freq.	Reasons	Freq.	Total
1.	Building Technology	25	New type of architecture Fast Building New Material High Rise	20 16 10 6	52
2.	Modern Street	22	Use of Car Comfortable in Driving Helping in quick Transport	23 17 10	50
3.	Availability of Utilities	18	Comfortable Living Healthy Services	20 7	27
4.	Shopping Centres	14	Good Shopping Areas	13	

			Meet People	10	23
5.	Big Garden	12	Good for Children to Play Relaxation Beautiful Green Areas	12 5 5	22
6.	Modern Beach	7	Moderate Climate Meeting People Viewing Sport Reason	4 2 3 1	10
	Total				167

The adjectives given by the respondents in discussing modernisation included civilisation, high-class, growth, richness, education and not backward. It was mainly seen as a positive force among the younger members of the sample. The responses show that the facilities that old city does not have (the services, use of the car and wide gardens) make the modern city preferable. The high rise buildings as well have become the sign of a modern, international city although these are elsewhere said to be the least loved buildings in the city (see discussion to Q 11). This shows a dislocation between how something is viewed as a purely visual object with a superficial impact and how it is valued at a deeper and more thoughtful level.

A similar mismatch is demonstrated in the remarkably high appreciation of roads in the modern city. Other than for drivers and car passengers, the experience of the roads in Kuwait City is not a pleasant one and the pavements are empty of people throughout the day. The roads are costly to build and maintain, being constructed as if in a temperate, northern country. Yet people do like the roads on account of their new cars. Almost all cars in Kuwait City come from the United States (Cadillac, GM, Ford). These are very large vehicles that consume massive quantities of petrol but offer safety, comfort and air-conditioning. The use of cars has become a necessity, despite the noise and the environmental pollution it causes. In other words, this is a preference that is not connected to people's engagement with their environment, their place, their climate or their culture.

Q(6): Mention 3 important qualities or things in the old town that is not available in the new city, give 2 reasons for each.

No	Qualities/Things	Freq.	Reasons	Freq.	Total
1.	Compact Planning	29	Enhance Safety Strengthen the Social Relation Create Sense of Belonging Good Climate	20 19 9 8	56
2.	Narrow Streets	27	Good Climate Place of Social Activities Safe Areas Enhance of Privacy	20 15 8 7	50
3.	Way of Building	14	Simple Way of Construction Organic Planning Traditional Techniques	14 9 5	28
4.	The Same Building Height	9	Simple Way of Construction Traditional Techniques Organic Planning	7 6 2	15
5.	Local Material	4	Natural Material Available Locally Suit the Climate	5 2 2	9
6.	Total				158

What distinguishes the old town in the opinions of the respondents are the compact planning, unified building masses, narrow streets and use of local materials and an indigenous way of construction. All these physical characteristics complement each other. Although to the outside observer they give the final form, aesthetic and identity to the urban fabric, for the residents they evoke a feeling of belonging, identity, privacy, tradition, co-operation and simplicity in life. This mixture of socio-cultural, psychological and spiritual feelings is the basis of much of what people miss in their new cities.

Many respondents were aware that the design of Old Kuwait was positively adapted to the climate. The narrow alleyways, defined by the paths people had always taken from their front doors to the public places of the market, the square, the harbour or the mosque, formed a sequence of cools shaded spaces that were always at least partly shaded. They invited people, especially the elderly, to walk to their prayers five times a day, even in mid-summer. These

alleys were a constant buzz of social activity, with people passing along them, swapping news, children playing or residents cleaning their part of the alley. These channels therefore were not merely transit routes but living places that expressed social history, function and movement.

In talking of the traditional way of building, many respondents referred to its simplicity of construction and appearance. To them, simplicity was regarded as a genuinely positive quality. The materials of construction were simple and durable, allowing all people to participate in the building of their own homes and enabling them to carry out all but the most far-reaching repairs and alterations. The need to bring contractors into the privacy of the home only arises in the more complicated tasks such as installing a water tank.

To make things simple is a quality. Requirements can be very little and very few. The simpler rooms offer themselves to a wider variety of uses, as living rooms during the day, eating rooms during the evening and sleeping quarters at night. The author recalls that one bed would usually contain several mattresses and each family member would take his or her own mattress to sleep. Similarly, in the kitchen, all cooking was done with two or three pots, unlike the multitude of specialist accessories that are sold for today's kitchens.

The colour of the house was simple – a plain gypsum whitewash that reflected the heat of the sun and fused all neighbouring buildings into one single architectural mass. Yet this very plainness only enhanced to a great degree the appearance and value of those decorated parts of the exterior – the doors, *mushrabiya* window screens and the parapets.

Q (7): Mention 3 important qualities or things in the new city that were not available in the Old City and give 2 reasons for each.

No	Qualities/Things	Freq.	Reasons	Freq.	Total
1.	Utilities	29	Health Facilities Comfortable Services	31 25	56
2.	Open Spaces	25	Play Areas for Children Relaxation	26 15	41

3.	Paved Wide Streets	22	For Quick Transportation Use of Car	16 10	26
4.	Shopping Centres	19	Commercial Areas Social Place	19 6	25
5.	Building Technology	14	Fast Construction Wider Spaces New Ways of Building	6 5 2	13
6.	Leisure Centres	5	Socio-Cultural Places Educational Centres Entertainment Purpose	4 4 3	11
7.	Total				172

All the answers to this question is concentrated on the public facilities, their availability, the technology of building constructions, width of the paved streets, commercial centres, open areas and entertainment. The wide roads in the modern city facilitate the use of the car, while in the old town the roads and paths were unpaved and suitable for pedestrian or animal use only. What is noteworthy here is that, while the answers in Q (6) concentrate on the subjective aspects such as the social interaction, privacy and sense of belonging, these answers focus on the objective elements such as the availability of services, car use and building techniques that satisfy instantaneous demands.

Q (8): Name2 important buildings that give the city its character and give 2 reasons for each.

No.	Buildings	Freq.	Reasons	Freq.	Total
1.	Seef Palace	30	Historical Building Archaeological elements Focal Point Good Location	25 16 7 3	51
2.	Al-Jahra Gate	20	Aesthetic Façade Local Style Symbol of Defence	14 10 2	26
3.	Grand Mosque	12	Religious & Spiritual Symbol Educational Centre Big Building	9 6 3	18
4.	Souq Al-Sharq	7	Shopping Meeting People Good Climate	6 3 2	11

5.	Liberation Tower	3	Landmark Tourist Good Location	5 2 1	8
6.	Kuwait Water Towers	2	Landmark Green Area Modern	4 1 1	6
7.	Total				120

These answers as a totality form a portrait of the people of Kuwait City. The presence of Seef Palace represents their desire for a strong and accessible leader and the deeper needs for safety, security and collectivity. This is followed by Al-Jahra gate, an historical feature that evokes at the same time the act of welcoming strangers and desert travellers into the city during the day while being protected from them at night. Thereafter the people spoke of places that satisfied the needs for prayer, heritage, crafts, education and social life. Liberation Tower was erected to commemorate the passing of the crisis in the 1990s, with the invasion by Saddam Hussein of Iraq, and, finally, Kuwait Water Towers represents a leisure park indicated by monuments of an outstanding futuristic design.

Q (9): Name 3 buildings you most like in the city and give 2 reasons for each.

No.	Buildings	Freq.	Reasons	Freq.	Total
1.	Salhia Complex	25	Good Location Commercial Centre Good Climate	15 12 5	32
2.	Grand Mosque	22	Religious and Spiritual Symbol Educational Centre Big Building	15 12 4	31
3.	Seef Palace	19	Historical Building Archaeological Elements Focal Point Good Location	10 6 3 1	20
4.	Souq Al-Hirma	15	Cultural Dimension Meeting People Important Heritage	8 3 6	17
5.	Liberation Tower	3	Landmark Tourist Good Location	4 3 1	8

6.	Sea Aquarium	3	Nice Design Educational Centre Good Climate	3 1 1	5
7.	Total				113

Although the answers to this question do not differ much from the previous ones, those differences are telling. Al-Salhia Complex for instance, is a new building with traditional features and that functions as a shopping centre. Most buildings mentioned were chosen for their traditional style, history, locations, the beauty of their elevations or because they provide an important service. It is interesting that the Kuwait Water Towers, said to contribute to the character of the city in the previous question, are not mentioned again here.

Souq Al-Hirma is a traditional souq where women, usually needy women (the poor, those who have been divorced, the elderly) sit on the ground and sell crafts. Its name comes from a *hareem*, a 'group of women' and is connected to the word *harm*, or 'taboo'. To buy something here is an act of charity and kindness as well as commerce. This tradition can be found in no other Arabic countries, where women are forbidden to make such an appearance in public, even though people who buy goods here must not speak to or look into the eyes of the sellers.

Q (10): Mention 3 changes you like to make in the city for the future and give 2 reasons for each.

No.	Changes	Freq.	Reasons	Freq.	Total
1.	More Recreation Places	22	Lack of Leisure Centres Social Activities Educational Purpose	18 7 4	29
2.	More Parking Places	20	Lack of Car Parking Places Solve Traffic Problems	13 7	20
3.	Maintain the Old City	16	Important Historical Location City Identity National Heritage Educational Purposes	10 7 3 3	23
4.	More Public Gardens	14	Lack of Green Areas Places for Entertainment	11 2	13
5.	More Pedestrian Routes	5	Safety from Traffic Solve Traffic Problems	4 2	

					6
6.	Preserve the Green Areas	4	Importance of Greenery Reduce Pollution Good Sight	5 3 2	 10
7.	Total				101

When asking about changes or desires for the future, most answers were concentrated on requiring more places of entertainment, car parks, preserving the old city and more pedestrian paths. These desires represent closely what the people miss from their experience of the past. This indicates the belief that people once enjoyed a more fulfilling life than today.

The call for more pedestrian routes is interesting, as it does not correspond to earlier statements given to Q 7. Traffic, as recognised in the call for more parking amenities and pavements, is a genuine problem in Kuwait City, especially during the rush hours. Building regulations enforce developers to build shaded car-parking for every new development and the government provides extra land for this. The Grand Mosque sits about three storeys of parking, offering spaces for 500 cars, but even this is not enough and people are forced to park in the open nearby spaces, fully exposed to the sunlight. This is a significant discouragement against going to pray. As for pedestrianisation, every district in Kuwait City since the 1990s has a special area set aside for walking, paid for by the government in order to encourage social health. In the evenings, people park nearby and walk for one or two hours in an open and planted area.

The desire to maintain the Old City reflects concerns on the part of older respondents that the young do not know how the earlier generations lived. They spoke of a need for an area that would demonstrate the traditional lifestyle, with one- or two-storey buildings, narrow streets, wooden doors and courtyards. Significantly, they did not wish to see such developments for aesthetic reasons but as to communicate knowledge and re-establish the notion of social meaning.

Q (11): Name 3 buildings you do not like in the city and give 2 reasons for each.

No.	Buildings	Freq.	Reasons	Freq.	Total
1.	High Rise Flats	16	Do not Suit the Way of Life Crowded Not Nice Poor Maintenance Not Clear	12 9 5 4 2	32
2.	Workshops in the City (Garages, Metalworks etc.)	12	Unsightly Smelly Noisy Make Pollution	11 9 9 4	33
3.	Some Ruined Buildings	6	Not Nice Need Maintenance	6 4	10
4.	The Fish Market	3	Smelly Is in the Wrong Place	3 3	6
7.	Total				81

Although none of the respondents lived in high-rise flats, it is significant that these were the most disliked buildings in the city. They are immediately recognised as being 'crowded' and contrary to the 'way of life'. In these buildings, which can be up to 40 storeys high, many apartments share a front door rather than having their own entrance, as was traditional, and consequently there is a lack of personal engagement between the dwelling space and the outside world. Equally, high-rise flats deny to their residents the use of a roof-top space which, as is described in earlier chapters, functions as an integral space in the traditional courtyard house. Many other aspects are also denied by these constructions. Visiting people is no longer a private act, the children no longer have a safe play space within immediate reach of their family homes, there is no place to gather for family events, there is nowhere to keep animals and any damage done to the building fabric can only be repaired by specialist contractors. Also, neighbours live above or below you, rather than to the side, and no arrangement of the rooms within an apartment can guarantee that they are free from noise, while life is ever more dependent upon mechanical services working every day. As these buildings are high and thin in silhouette, they spread a radial rather than a linear shadow over the ground, which is not able to protect any

particular path from the sunlight. Also they are seen to dominate the skyline, in effect crowding the other buildings that stand nearby. These many complaints have been crystallised by the respondents into the recognition that such buildings are incompatible with their traditional values.

Q (12): Mention 3 changes have been made in the city did not like, give 2 reasons:

No.	Changes	Freq.	Reasons	Freq.	Total
1.	Big Apartment Complexes	20	Do not Suit the Way of Life Need of Maintenance Unsightly and Crowded	15 6 5	26
2.	Workshops in the City	16	Source of Pollution Unsightly Danger for People	8 8 7	23
3.	Destruction of Some Old Buildings	14	Historical Buildings National Heritage Cultural Symbols Educational Purpose	7 7 5 3	22
7.	Total				71

This set of answers confirms the main points that have been raised in the proceeding questions and correlate to the concerns raised by the author. They show a general anxiety that the old city is disappearing and that the developments that are replacing it, although perhaps superior in terms of material services that they offer, are felt to be inferior overall.

The reasons for this are almost entirely to do with the fact that Kuwaitis hold, in their subconscious minds, social aspirations that are met by certain models of behaviour and, in turn, expressed through certain approaches to urban architecture that is not recognised in many of the new complexes. Equally, they express the strong wish to see their heritage restored, again, not for reasons of its beauty but for the knowledge it embraces, such that future generations will always be able to find a place where they can feel a connection to their culture, traditions and environment.

Q (13): Would you like to say anything more about your city?

Twenty-five respondents answered this question. Their recommendations are summarised in the following points:

- Creating legislation to preserve the traditional style and the historical city features 7
- Providing the city with more parks and playgrounds for children 5
- Theatres and sports clubs has a main priority for the young people 4
- Reducing traffic in the streets and designing more car parks 4
- Increasing the greenery all over the city. 2

4.5.3 Part (C): Questions about the Neighbourhood:

Traditionally, *fireej* (neighbourhood) meant a group of abutted houses, usually occupied by extended families or by people with common religious, ethnic or occupational ties (sandal makers, tailors, ship-builders etc.). The neighbourhood was characterised by a strong feeling of group solidarity and reciprocal duties and obligations are part of life within them. These quarters were not divided according to status; rich and poor lived alongside one another and shared the same market, mosque and school. Neighbourhoods were traditionally considered by the state authorities as administrative units, which usually had one headman (*moktar*) each.

Although the quarter was a closely-knit group, there was always a balance between this autonomy and the quarter's participation in the communal and economic affairs of the city as a whole. Each neighbourhood had a central place at the point where the residential streets converged and this was used for commercial, social and religious activities. In neighbourhoods defined by a particular craft or trade, this was where specialist souqs could be found. It was a common area where people went to see others and to be seen, and where they held large ceremonies. It can be said that the *fireej* was a macrocosm of the house.

However, planning in Kuwait from the 1960s converted the old neighbourhood alleyways into a 'modern' street grid. The government established a fund to buy those building which clash with the new road planning. The diagrammatic plan of Kuwait City (fig. 4.05) shows it as series of crescents connected by radial routes. In the housing pattern, as shown, the planner created a blocks of prototype houses in which a variety of shapes are combined almost as if by hazard, rather than stemming from the deep cultural needs and the way of living of the individual families. The plan also indicates the quarter level at which the social unit is delineated.

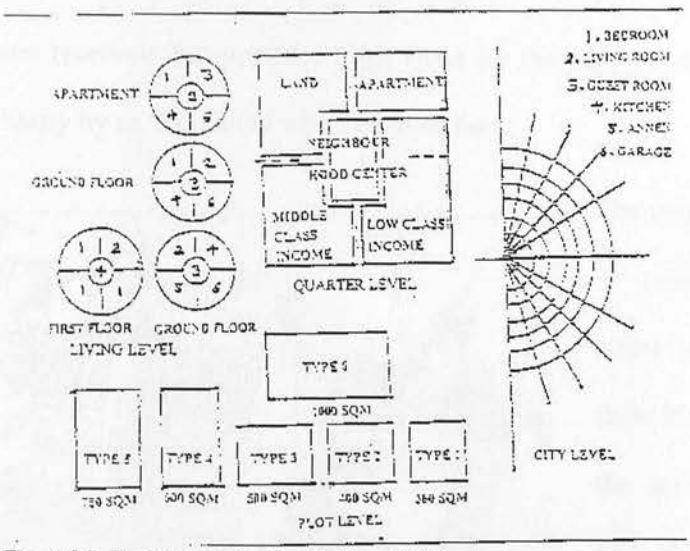


Fig. 4.05: Diagrammatic plan of Kuwait City

Q (14): Mention 3 things you most like to see in your neighbourhood and give a reason for each.

No.	Things	Freq.	Reasons	Freq.	Total
1.	The Open Square	15	Interesting Culture Events Meeting People Spending Spare Time	9 5 3	17
2.	The Unity of Facade Colour	6	Aesthetic Purpose Sense of Belonging	5 3	8
3.	Community Regular Meetings	3	Satisfy Social Needs Enhance Cooperation	3 2	5
4.	Availability of Playgrounds	2	Children's Safety	2	2
7.	Total				32

One of the most liked aspects about the respondents' neighbourhoods was the open square. This is a place where the whole sub-community gathers, dances, talks and has a good time. Fig. 4.06 shows Flag Square in use for sword-dancing, a popular ceremonial display of skill, athleticism and bravery. What is significant about the open square is the contrast it offers against the fabric of the neighbourhood. It stands as a relief against the enclosed and narrow alleys, a place where the frontages of the buildings make an active participation to the urban character and the neighbourhood itself can be said to be 'on display'. The centre of Flag Square, for example, holds a water reservoir that provides fresh water for the whole community and was installed as an act of charity by an individual who had lived there.

Fig. 4.06: Traditional sword-dancing in a neighbourhood square

The respondents also felt that the act of painting the buildings of one street with the same colour gave them the feeling of participation and the sense of belonging and unity. This shows their awareness of unity in building colour as an expression of social cohesion.

Q (15): Mention 3 customs or traditions that give character to your neighbourhood and give 2 reasons for each.

No.	Customs/Traditions	Freq.	Reasons	Freq.	Total
1.	Co-operation	30	Social Traditions Cultural Attitudes Sense of Belonging	25 13 7	45
2.	Good Relations	25	Cultural Attitudes Relatives and Neighbours Social Traditions	15 12 4	38
3.	Social Integration	18	Cultural Behaviour	12	

			Sense of Belonging Responsibility	7 2	21
4.	Conservatism	11	Religious Guidance Cultural Behaviour Privacy	13 5 3	21
5.	Regular Meetings	3	Responsibility Sense of Belonging Cultural Manner	3 2 2	7
7.	Total				132

The answers to this question place communal participation, cooperation and good relationships between neighbours as the most noteworthy benefits of the urban traditions of Kuwait City. In some quarters people gather regularly to discuss their problems. The quarter is synonymous with the 'big family' which constitutes the society of the city. The connection people stated between 'social integration' and personal responsibility is a strong indication of the value that such neighbourhoods have for them.

Q (16): Would you like to say anything more about your neighbourhood?

Only six answered this question, although they provided a range of ideas that are summarised in the following points:

- Cooperation is a way of life but people need to work for it 6
- Social relations are important; the government should create more places for activities 6
- Competition between neighbourhoods enhances social quality and relationship 3
- More services are needed for the neighbourhood 4

Most of the responses focus on preserving or enhancing cooperation among the inhabitants. They also underline a theme to the answers to this part of the questionnaire, which is that the neighbourhood is not merely something that can be statistically defined. It is an area of shared values and meanings, a locus for cooperation and communication.

4.5.4 Part (D): Questions about the Dwelling Unit:

The word dwelling has several meanings, most of which relate to profound philosophical and social dimensions, which are much deeper than its physical description as a mass of stone or place of daily life. Dwelling is a symbol of the family, the basic unit of the society; it is a symbol of culture and history. It is the main architectural component that gives shape to a person's education, morality and future behaviour.

Q (17): In what type of dwelling you prefer to live and give 3 reasons why.

No.	Dwelling Type	Freq.	Reasons	Freq.	Total
1.	Villa Type	24	Ample Area Comfortable for living Beautiful Façade Place for Car Garden Surrounding	11 11 11 9 8	50
2.	Traditional Style	6	Suitable / Socially Suitable / Climatic Beautiful Courtyard Simple Design	8 6 4 2	20
3.	Flat	4	Economic Reasons Easy to Furnish Tidy Area	3 2 1	6
7.	Total				76

The answers about the preferred accommodation can be placed in three categories as shown in the table above.

The villa type of house is usually has a large area. Size is very important for Kuwaitis because their way of living, customs and traditions require a spacious interior. For instance, many desire adequate room to hold a large numbers of guests on occasions such as weddings or religious celebrations, which take place at home. Also this type of house is suitable for typically large Kuwaiti families, where the mean number of members is 6-8 persons, or for use by an extended family. These conditions are very common in Kuwait, where many young people still live with

their parents even for a short time after their have married. Moreover, this type of housing is appreciated for its modern utilities and services and many respondents spoke of the beautiful façades, and big gardens, which is highly prized element for most people. The presence of greenery is a strong desire among all desert cultures, which equate plant-life with an image of paradise, and to have such a space as an extension to the house space is highly valued.

The traditional courtyard house, however, was said by many to be better at providing privacy for family members, being better suited to the social life and able to cope with the climatic conditions. The courtyard serves many functions besides its symbolic meaning. What distinguishes this kind of house is its simplicity in design and construction.

Finally the people who had nominated the flat indicated that their choice did not signify anything of the life style or traditions. They saw it as a temporary place to live, mainly because of economical reasons and ease of maintenance.

Q (18): Name the orientation you would like to direct your house to and give 2 reasons why.

No.	Direction	Freq.	Reasons	Freq.	Total
1.	North	21	Northern Cold Breeze The Sea Sight Away from the Sun	21 16 12	49
2.	East	6	Warm in Winter Natural Light	4 3	7
3.	South	4	Main Street	4	4
	Total				60

As shown on the table above that among 31 interviewees who answered this question, a huge majority (21) preferred their houses to face to the north, and none to the west. This clearly signifies that orientation presents something in people's culture, life and worldview.

The orientation of buildings is most often related to the sun's trajectory and this has become

abstracted in people's minds into a set of deeply held cultural and spiritual values that locate man's place not just within the immediate environment but within the universe as a holistic and meaningful phenomenon. Traditionally, orientation had, and still has, strong symbolic meanings and value. For the Kuwaiti north is the direction of mercy (*rahmah*) from where the cold breeze comes in the hot/dry summer. North is the direction towards the sea, the fish and the nicest view. In addition, in Kuwaiti culture, north means the future, hope and dignity whereas east means the sunshine and departure. There is no equivalent positive symbolism attached to the west or the south because the most unpleasant factors of the climate come from these directions, although west is the direction of *qibla*, towards the Holy Ka'aba in Mecca.

The orientation of the buildings can also be greatly influenced by, and itself influence, the external urban spaces, streets and city form and structure as a whole. One respondent chose the south orientation because in his case this gave on to the main street, which was an area of social interaction. For many people the street is considered as an extension of their personal exterior space where they meet others, socialise and display their goods if they are merchants.

Q (19): Name 2 building materials you like to use in your house and give 2 reasons for each.

No.	Materials	Freq.	Reasons	Freq.	Total
1.	Marble	25	Beautiful Long Life Thermal Insulator Easy to Clean	14 10 7 3	34
2.	Brick	18	Beautiful Look Good Thermal Insulator Light	9 6 6	21
3.	Natural Stone	18	Beautiful Good Insulator Long Life Strong	9 2 2 2	15
4.	Aluminium	7	Beautiful Long Life Light	9 2 4	15
5.	Timber	2	Beautiful, Natural Natural	4 1	5

6.	Concrete	2	Strong	2	2
7.	Total				92

The answers to this question show a striking similarity. Almost one half (45) of all reasons given as to why respondents prefer certain materials are because of its beauty. In the old town, people used to build their houses with whatever local materials were available, such as sand, limestone and palm timber, and imported materials such as glazed tiles and mosaics. Although sun-dried bricks were the cheapest, they were not commonest. Burnt bricks were very rare and mostly used for the corners of stone walls. The coast is rich in limestone, which is still widely used in building. On the other hand, mud architecture was quite common in the south where the rain is very scarce.

Marble, the most popular building material, is rare and mostly imported from Italy. Its cost means that it is usually used in ornaments or mainly in the governmental buildings or rich people's houses. It represents power, social wealth and perpetuity.

Although brick is an uncommon building material, people were aware of its efficiency as a good thermal insulator. Brick has been well known in the Gulf Regions since prehistory and other countries that have contributed to Kuwait's history (Persia and Turkey) have used brick in their buildings, many of which are architectural masterpieces.

Sheikh Kazal, from Al-Mohamra in Iran introduced brick to Kuwait in the 1920s. He was the architect for the Palace of the Amir of Kuwait and his Seef Palace is still considered as a masterpiece.

Natural stone embeds a greater feeling of place and environment than does brick. It is the symbol of nature and its power, eternity and softness. Culturally, structure or architecture has always been intimately connected with stone. The placing of one stone upon another is synonymous with building, and it can be said that this is the source of architecture. Even if people prefer the

use of other materials, they often use stone for external ornamentation or for cladding their buildings. From this arises its non-structural and non-functional use, which indicates that stone is highly valued for its symbolic value.

The strength and use of the local materials is not only spiritual, it is also physically comfortable. Mud buildings, for instance, are cool in summer and warm in winter. By their very nature the thick earth walls provide protection against extremes of the climate. Unfortunately, because these materials are more prevalent in developing countries than in the West, some people view traditional building materials as a symbol of backwardness from which the country needs to escape.

Q (20): How many storeys would you like to have in your house, give 2 reasons.

No.	Building/Storeys	Freq.	Reasons	Freq.	Total
1.	Two Floors	23	Beautiful Façade Separates Living and Sleeping Makes Shade for Outside Area	9 8 7	24
2.	One Floor	11	Easy to Move in More Economical I do not Like High Floors More Connected to the Earth I cannot use Steps	11 15 7 4 2	38
3.	Total				59

This answer shows that humans retain a strong attachment to nature and the earth. Value is placed on being close to mother earth, where people feel greatest security and a sense of belonging to their environment. By living close to earth it is possible to experience many elements that cannot be appreciated from a height. It also provides a range of practical advantages, as expressed by the respondents.

Nevertheless, most respondents indicated that they preferred to live in a two-storey house, in which rooms used for the reception of guests can be easily kept apart from the very private

family rooms. Such designs also have a positive effect on the outside spaces, whether a garden or a courtyard, in providing shading and making these available for a range of informal uses.

Modern Kuwait City has seen high-rise blocks with huge open spaces between each of them spreading in great numbers. These constructions are not viewed with happiness by the respondents; not only are they seen to divide people from the earth but also are seen to make no contribution to the social life of their residents. Thus the planning and design of these houses fundamentally affect the family and the community as a whole.

Q (21): Mention 3 features you most like to have in the front façade and give 2 reasons for each.

No.	Features	Freq.	Reasons	Freq.	Total
1.	Front Garden	30	Aesthetic Value I like Greenery	30 22	52
2.	Big and Nice Entrance	19	Aesthetic Value	15	15
3.	Arches	13	Aesthetic Value	12	12
4.	Outside Shelter for Sitting	5	For Social Gathering Provides Shadow	7 3	10
5.	Mashrabiyah	4	Aesthetic Value Provide Shadow Provide Privacy	6 5 2	13
6.	Total				102

29 interviewees stated that they prefer a front garden in order to give a fine view of the house and to create a distance between the house and the street. The idea of a garden, particularly as a symbolic evocation of paradise, is an inversion of the concept of the traditional courtyard, a completely private enclosure that gathered the spaces of the house about it.

Many people desired a fine entrance with a decorated gate; this is the first thing a passer-by or visitor would see of the house. The main door in all Arabic cultures has a powerful spiritual and symbolic meaning, creating a threshold between the realms of the private house and the public city, which the individual is not allowed to cross without permission. The Kuwaiti main door

often expressed this symbolic value through the use of a lintel that was at the eye level of the average male, forcing any person to bow in entering the house.

Thirteen people said that they would like to have arches in the front façade. The arch is one of the most powerful and expressive typological features in architecture that embraces profound psychological and historical forces. Throughout the history of architecture the buildings of many indigenous cultures, have adapted a form of the arch, first as a basic structural element, then as a focus for elaboration, individuation and for the representation of many phenomena from faces to daemons and plant-life. Ujam (1987) suggests that the arch is symbolically important and even has several symbolic purposes. Biologically, it looks like the shape of many parts in the human body such as the eyebrows, the lips or the skull. In cosmological terms the arch represents the crescent, the cave entrance and many natural phenomenon to which man showed a great respects or fear. The human interpretation of these objects is as a symbol of power, beauty and identity. Therefore, the arch is more than an optional employment of a material's natural properties in building, but an element that motivates the deepest cognitive memory of mankind, symbolising continuity over time. Recent approaches to architecture have demoted the arch to a feature that has no symbolic purpose other than decoration and the arch can frequently be seen attached to buildings in a superficial, non-structural way (Ujam, 1987).

Q (22): What finish would you like to have for the façade and give 3 reasons for each.

No.	Type of Finish	Freq.	Reasons	Freq.	Total
1.	Rough Finish	29	Nice Visually Has Long Life Good for the Hot Climate Does Not Need Paint Gives Sense of Power	27 16 14 11 2	70
2.	Smooth Finish	5	Nice Touch Easy to Clean Economic Shiny	5 2 1 1	9
3.	Total				79

It is significant that the great majority of the respondents chose a rough finish (such as gypsum plaster; see fig. 4.07) above a smooth one. They saw it as being robust and suitable for the climate, thinking it would reflect a high percentage of the sunlight. Also this kind of finishing does not need to be painted especially if it was from the natural stone. The five interviewees who preferred a smooth finish also gave aesthetic and practical reasons for their choice. Rough finishes in the desert weather have many negative results. Dust storms can quickly coat the rough finishes of the walls, and cleaning the dust away is not an easy job but is essential, for when the walls are wetted during the rainy season they streak badly, especially if the building is of a light colour.

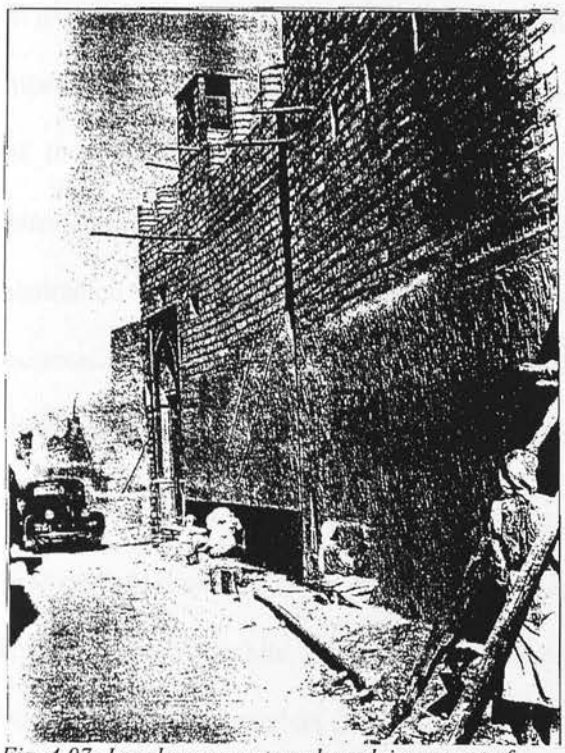


Fig. 4.07: Local masons at work applying a coat of gypsum to a newly built house (the square tower at the top of the house is a badgeer)

Q (23): What colour would you like to paint the front façade and give 3 reasons why.

No.	Colour	Freq.	Reasons	Freq.	Total
1.	White	26	Nice Colour Comfortable for the Eye Reflects the Heat Comfortable Psychologically I Like it Colour of Optimism	24 21 18 9 6 2	80
2.	White and Yellow	5	Look Nice Together Colour of the Desert Comfortable	5 3 1	9
3.	White and Green	2	Nice Colours Green is the Colour of Nature Green is the Colour of Hope	1 1 1	3
4.	Total				92

When asking about the preferred colour, 26 interviewees preferred white, 5 preferred white and yellow and only two preferred white and green. It is important that they all mentioned white. The reasons given were that it is a nice colour, comfortable to the eye, reflects the sun's heat and is the colour of optimism. Although it is true to point out that all three colours mentioned are pale in nature and likely therefore to reflect rather than absorb the heat of the sun, the last point that is most interesting. In response to the same question, that author heard that yellow was the colour of the desert, and green the colour of life, nature and hope. For these highly symbolic associations to have been made, without any prompting, shows the persistence of highly abstracted values that determine a locally unique approach to life and perception. It shows the existence of a schema of values through which the empirical aspect of colour is transformed in the mind immediately into a hidden subconscious value or optimism or hope.

White has always been the colour of optimism and purity. People use it everywhere, especially in important moments of the life cycle such as marriage and birth. In Muslim tradition the death shroud is always white. White is also internationally understood to connote peace, such that when an enemy surrenders in the field of combat, they indicate that they are unarmed by raising a white flag.

In Islam green used to distinguish the house of God. The upper part of the minaret or sometimes the dome of a mosque is often painted green or plated in green copper as a symbol of heaven and peace. In Kuwait City, it was traditional that, when a family member was making pilgrimage (*hajj*) to Mecca, a green flag was placed on the parapet of the house and those who saw it would wish the pilgrim a safe return.

Q (24): Mention 2 features you like to have in the living room and give 2 reasons for each.

No.	Features	Freq.	Reasons	Freq.	Total
1.	Large Area	28	Because of Life Style	25	

			Place for Social Gathering Reception Area for the Relatives Sometimes it is Used for Sleeping	13 7 4	49
2.	Arabic Sitting Sofa	15	Comfortable Traditional Way of Sitting Looks Beautiful	10 11 7	28
3.	Bookcase in the Wall	7	Educational Manner For Entertainment Decoration Device	9 5 3	17
4.	T.V.	7	Entertainment Educational Use	7 6	13
5.	Total				107

Most of the answer referred to large living room that could be used as a social space, which doubles as a reception and an additional bedroom. The Arabic sitting sofa (see fig. 4.08), mentioned by almost half of the respondents, is a feature of traditional homes, upon which people sit close to the ground (20-25 cm high), a position said to be good for the back. It usually occupies three sides of the room, with a back and a number of pillows made from the matching material and people face each other across a low table or a number of side-tables to converse and share coffee. This sofa is that appears as one piece, so that the people who sit on it do not feel separated, and it can also be used as beds for visitors during major family occasions.

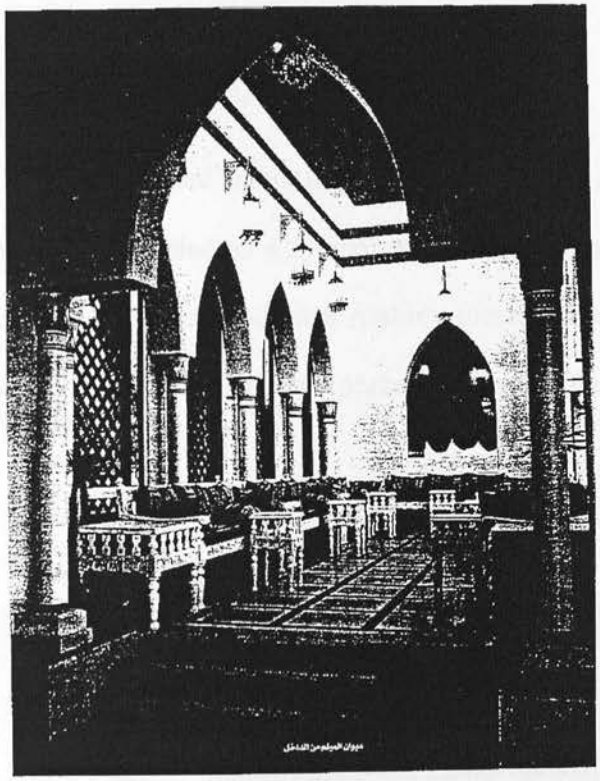


Fig. 4.08: Traditional Arabic sofa

Q(25): Do you like to have plants in your house like trees or shrubs? give 3 reasons.

No.	Yes / No	Freq.	Reasons	Freq.	Total
1.	Yes	31	Greenery is Aesthetic Moderate the Hot Climate Freshen the Air Entertainment	31 22 5 3	61
2.	No	0			
3.	Total				61

All respondents stated that they like to have plants or trees in their houses. It is not surprising that, in such and arid and hot climatic region that suffers from a shortage of water and greenery, people should place a high value on any plants, although this trait is shared with people throughout the world. Trees, in addition to their beauty, create shade for sitting and playing in, moderate the climate, freshen the air and help in filtering out smoke and pollution, as well as being aesthetically pleasing.

Trees, flowers and shrubs are also associated with many social and cultural symbolic meanings. A tree is regarded as a symbol of life, growth and fertility and referred to in Arabic as 'the mother'. In Kuwait and other Arabic cultures, planting a tree is encouraged and considered as an act of worship. The Prophet (peace be upon Him), stated that to plant a tree is an act of faith.

Fig. 4.09: Tree planted in a courtyard house

Q (26): Mention 2 features you like to have on the roof of your house and give 2 reasons.

No.	Features	Freq.	Reasons	Freq.	Total
1.	Storeroom	25	To Store Things	25	25
2.	A Roof Shelter	15	Makes Shadow on the Roof Aesthetical Appearance Good Out-Door Space Place for Children Play	11 9 5 5	30
3.	Wash / Room	10	Wash & Dry Clothes	10	10
4.	Total				65

Most roofs of traditional Kuwaiti houses are flat. There is no heavy rain or snow, as in European countries, so the roof is usually considered as an extra external space and as an extension to the rooms of the house. The roof has many uses, especially in the summer time. It is used for sitting and sleeping, a place for kids to play, a place of storage or for washing and drying clothes. Therefore the space offered by the roof is not less important to the household than any interior room. In recent years, people in Kuwait use their roof spaces for rooms for maids and for services and utilities, such as lift machinery rooms, air-conditioning plant or a space for ironing and laundry. In the past people used roof for sleeping and staring at the sky and enjoying the light of the moon or the movement of the stars which gives the person so many thoughts and inspiration.

Q(27): Do you like to use a water feature in your house such as a fountain? Give 3 reasons why.

No.	Yes / No	Freq.	Reasons	Freq.	Total
1.	Yes	26	Water is aesthetic Humidify the Air Moderate the Climate Nice Water Sound Sitting Around It Entertainment Grow Fish	25 19 11 7 6 3 1	72
2.	No	5	Risky on Children Waste of Water Needs A lot of Time and Care Not Economic	4 2 2 1	9
	Total				81

Water is generally understood to be a complementary factor to greenery. When asked if they desire a water feature in their houses such as a fountain or water pool, the respondents who said 'yes' added that water is a beautiful thing. It helps to moderate the climate, is beautiful to look at and listen to, that they like to keep fish and water plants to make the pool livelier, and that it offers a delightful place to sit around. Those who said 'no' gave mainly practical reasons, that water features are a risk for children and, besides, they waste water which is an essential factor in life.

Q (28): Mention 3 features you most like to have in your house and give 2 reasons each.

No.	Yes / No	Freq.	Reasons	Freq.	Total
1.	Large Sitting Room	17	Life Style Social Needs Big Family	15 13 6	34
2.	Large Guest Room	16	A Lot of Guests Several Celebrations	14 10	24
3.	Large Patio	12	Functional Place for Children Place for Sitting	8 7 5	20
4.	Separate Reception Area	16	Traditional Attitude More Privacy	7 4	13
5.	Green Garden	6	Aesthetic Reasons Reduce Some Heat	5 2	7
6.	Beautiful Façade	5	Aesthetic Reasons	5	5
7.	Nice Entrance Hall	4	Aesthetic Reasons	4	4
8.	Large Car Garage	3	Multi Purpose	2	2
9.	Total				109

When asking about the preferred features or characteristics in the house, the answers concentrated on the large area of spaces that best suit the highly sociable traditional life style. One of these traditions people still prefer and carry out in their daily life is sitting and eating on the ground. Food is usually placed in the middle while people gather in a circle around it. If the

gathering for food is very large in number, more than one circle is formed. This simple form of sitting and eating, which does not require much organisation, encourages people to chat and make jokes while eating and drinking. This kind of gathering is often done with relatives and friends and for all occasions, events or celebrations. Such meals may take several hours.

The other important point that emerges from the answers is the continuing value placed upon segregation between the family's private quarters and the reception area. The family section is required to be separated from the guestrooms to allow the family members to perform their domestic duties in complete freedom and privacy. They also prefer a large house garden or patio for children to play in, away from traffic and under parental supervision (see fig. 4.10).

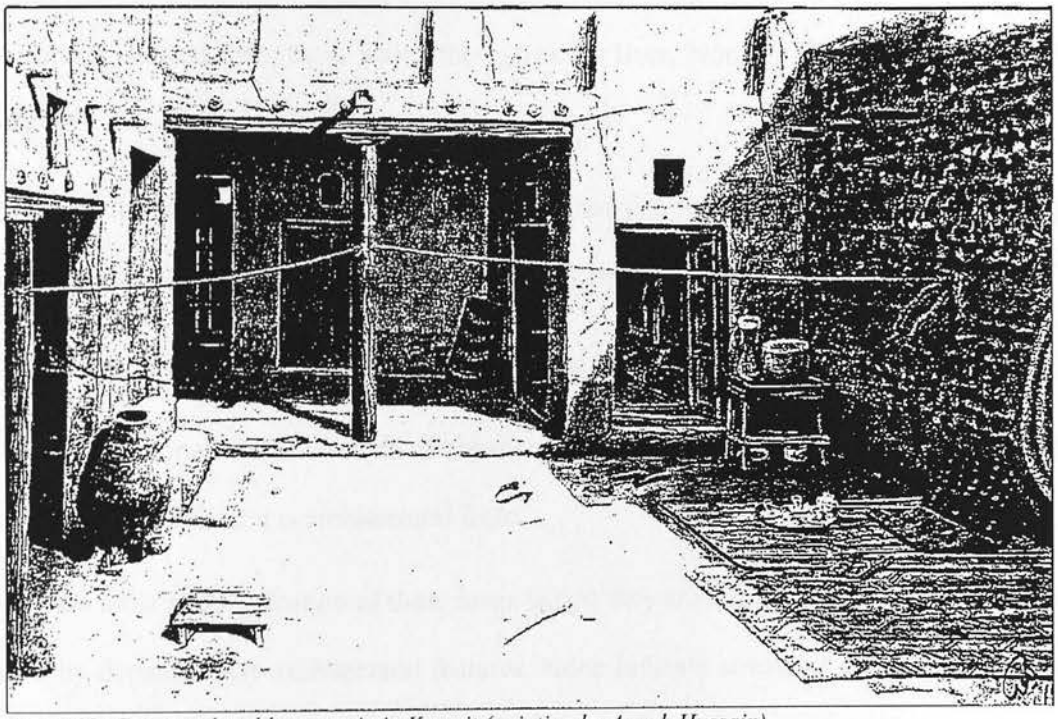


Fig. 4.10: Courtyard and large patio in Kuwait (painting by Ayoub Hussain)

4.5.5 Cognitive maps:

Sketch maps were also asked of the respondents as a way to allow them to express their memory of their city as a whole, and to present it in their own way, thus providing the author with an insight into how they structure Kuwait City in their minds. The sketch maps therefore comprise the last tool of the questionnaire. The following figures (4.11-4.16) show the 6 sketches that were provided by the only interviewers to have done so. The question asked them for a drawing of Kuwait City that would indicate the objects and features that are distinctive to them. The most significant points to emerge from the cognitive maps are as follows:

- Mostly, if not all the respondents showed the city centre as connecting to the sea;
- All maps showed the area in which the individual lives. None of them showed the city a a whole;
- Most of the maps focus on the major, well-known physical elements such as Mosques, government buildings, the seashore, the city wall and gates etc.;
- Most of the maps show a clear image of the street layout; and
- There are a considerable number of objects that do not appear on the written questionnaire due to its function or it is architectural form.

Perhaps the most striking feature of these maps is that they are so similar to each other. None try to show by depiction any architectural features. None indicate streets as a single line, which is common in to many studies, as all indicate streets as having geographical area bounded by curved lines. These characteristics, along with the fact that all maps are restricted to the respondent's neighbourhood, show a strong and shared interpretation of the city as a phenomenon that exists only for the purpose of bringing individuals close to one another. They do not see the city as being a place of physical spectacle or a repository of monuments.

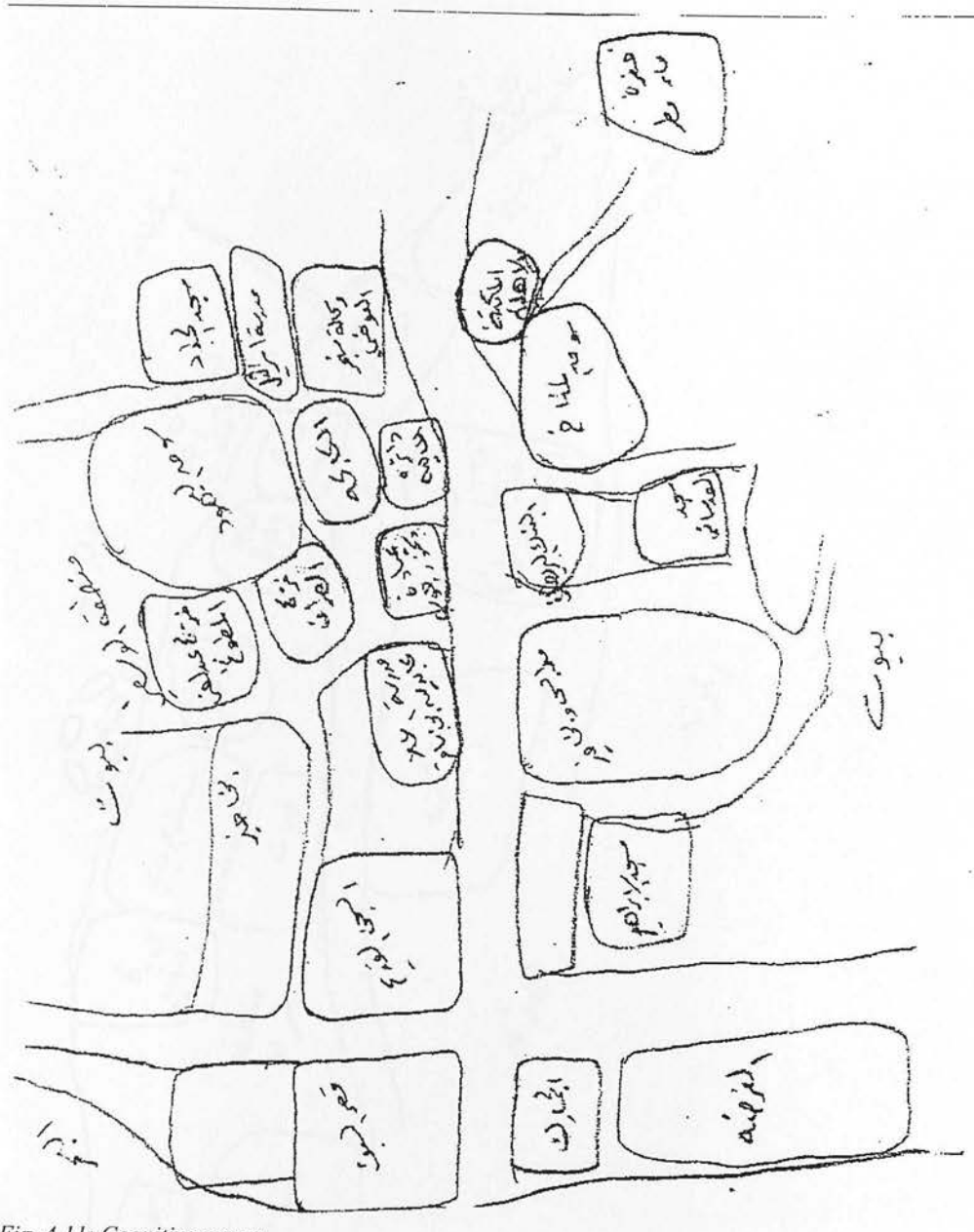


Fig. 4.11: Cognitive map a

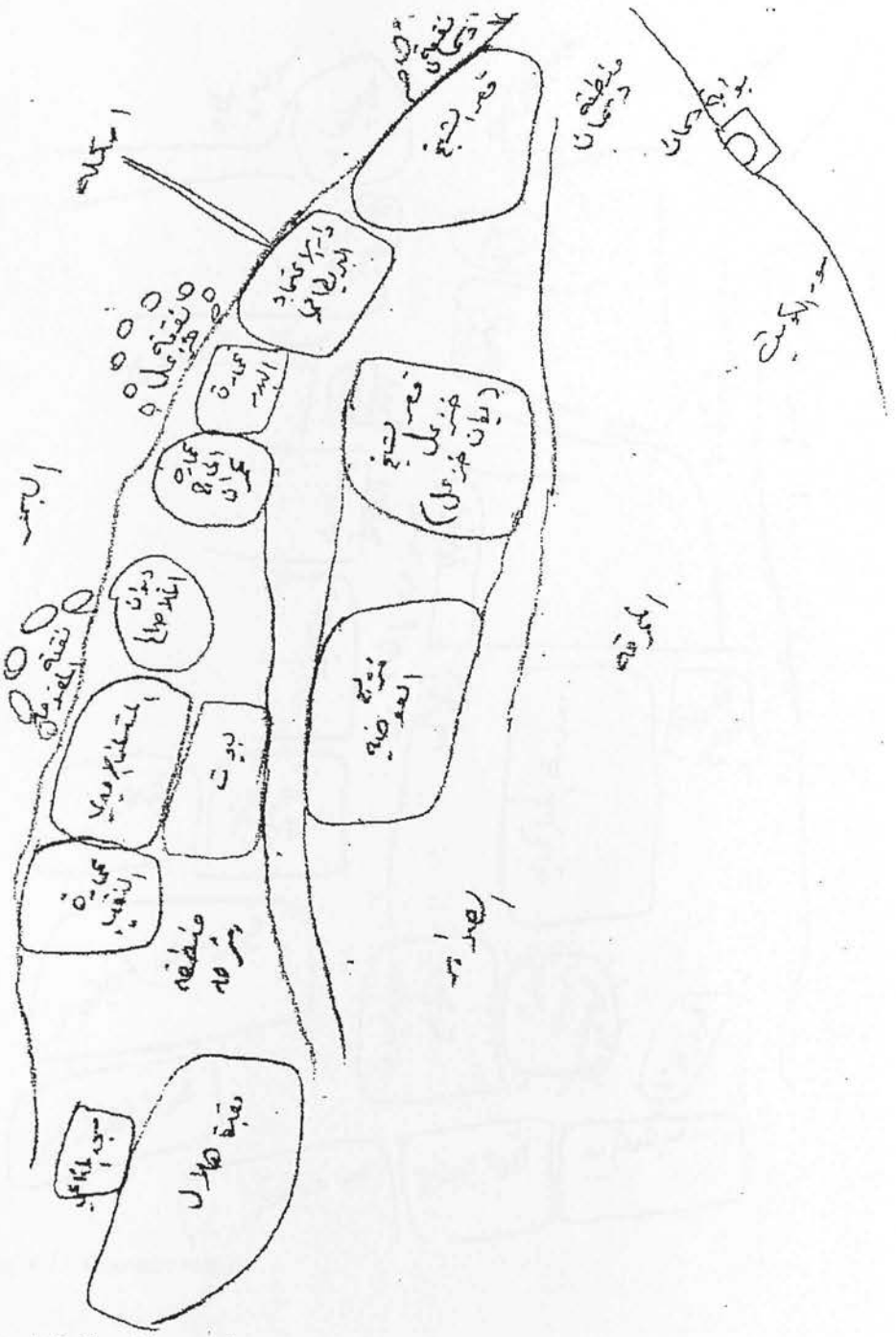


Fig. 4.12: Cognitive map b

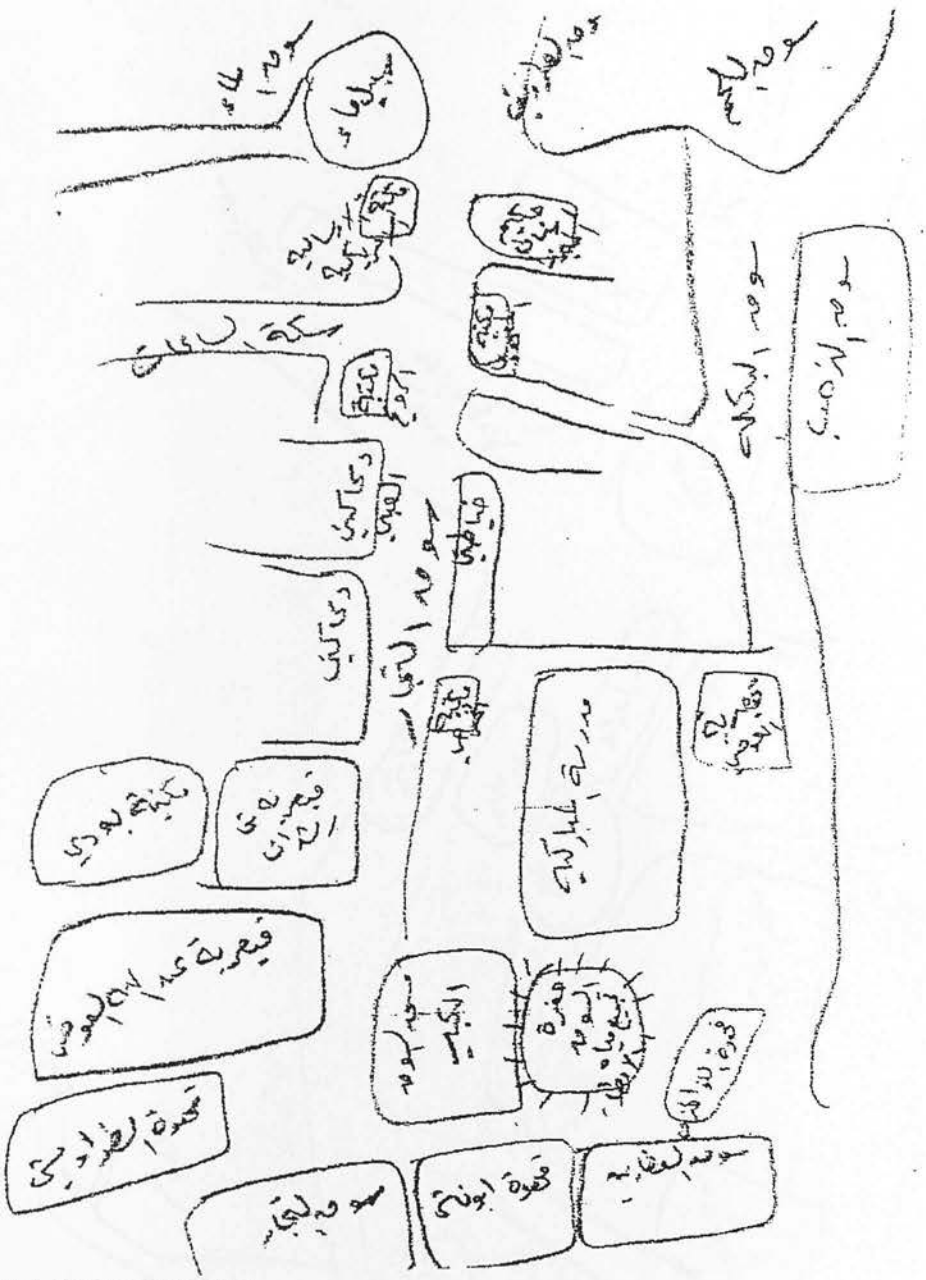


Fig. 4.13: Cognitive map c

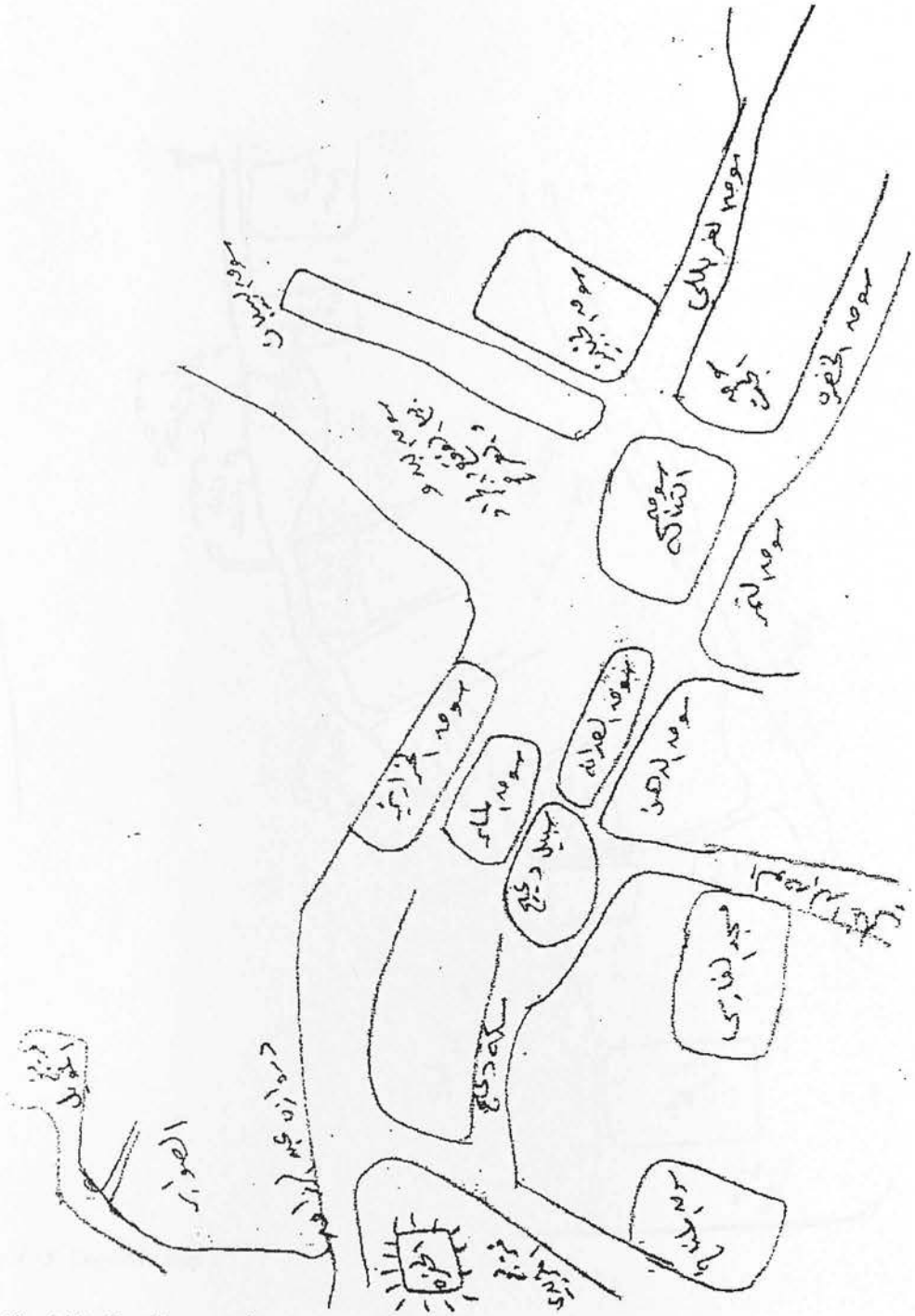


Fig. 4.14: Cognitive map d

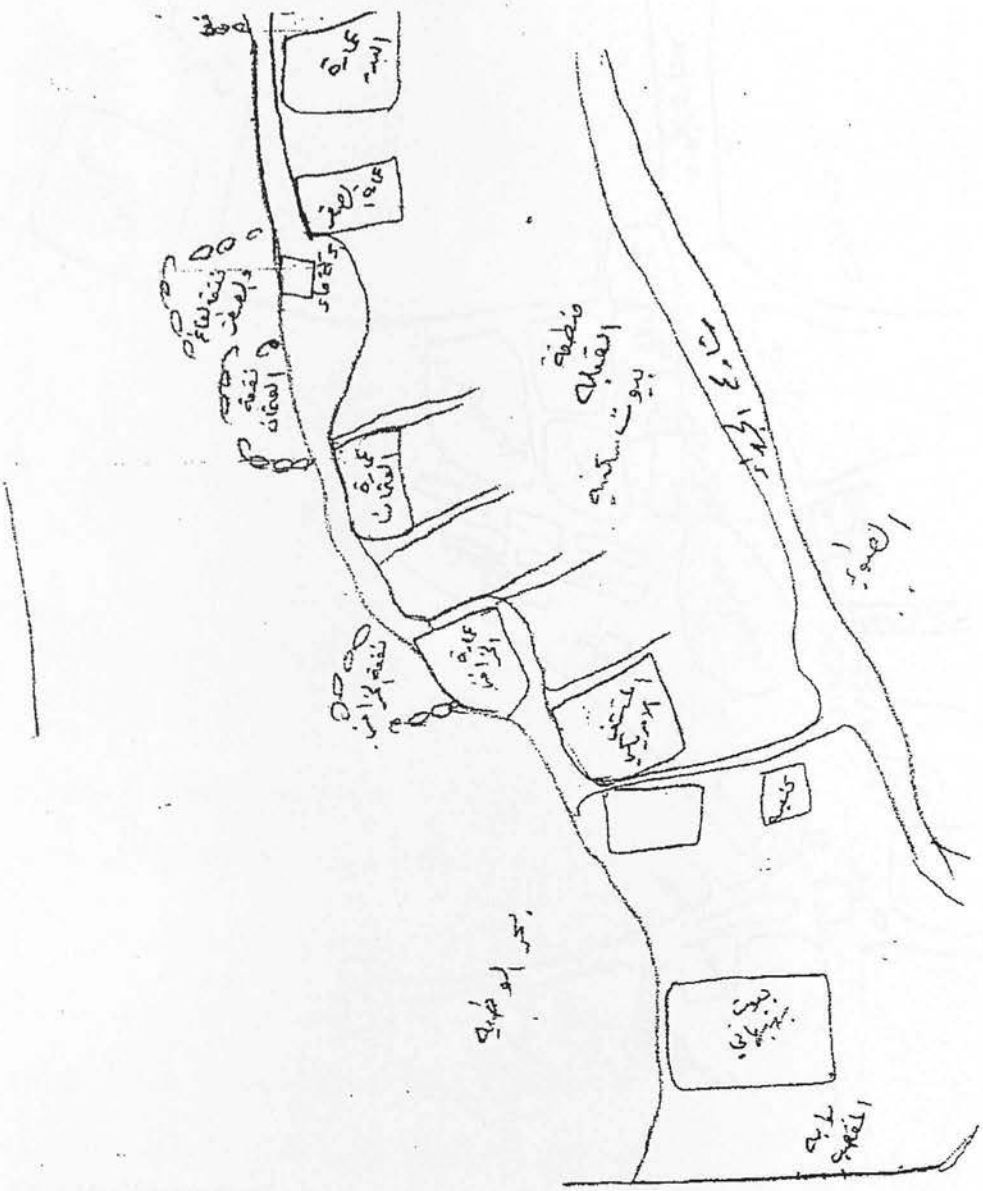


Fig. 4.15: Cognitive map e

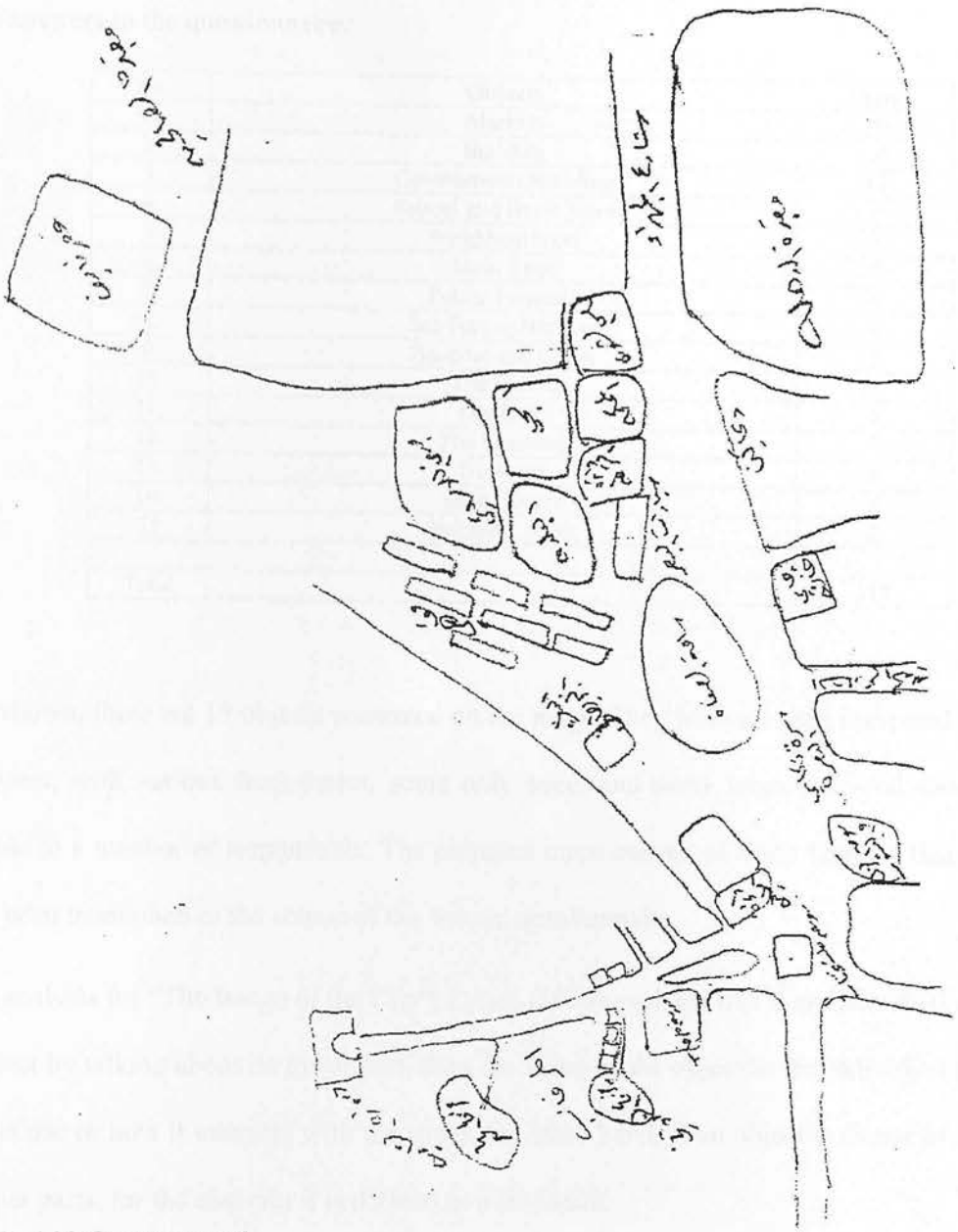


Fig. 4.16: Cognitive map f

The table below is a catalogue of all the objects that are shown on the maps. The author is interested in analysing to what extent these match those objects that have already been covered in the answers to the questionnaire.

No.	Objects	Freq.
1.	Markets	19
2.	Building	17
3.	Governments Building	12
4.	School and Book Store	9
5.	Neighbourhood	7
6.	Main Road	7
7.	Public Fountain	6
8.	Sea Port or Harbour	6
9.	Hospital and Clinic	5
10.	The Castle	5
11.	Old Gate	4
12.	The Seashore	3
13.	Diwanya	3
14.	Safat Square	2
15	Britannic Bank	2
Total		118

As is shown, there are 15 objects presented on the maps. They have all been presented a total of 188 times, with various frequencies, some only once, and some located several times, being valuable to a number of respondents. The prepared maps consist of many features that have not so far been mentioned in the course of the written questionnaire.

In his analysis for "The Image of the City", Lynch (1966) explains that if an individual describes an object by talking about its lower part, then the value of the object to the individual has to do with its use or how it interacts with the street. On other hand, if an object is characterised from its upper parts, for the observer it is defined as a landmark.

A cognitive map is a depiction of an individual's experience of and attachment to the place in which he lives. It is common for the individual to display a stronger attachment to his place of residence, and this can be said to be particularly applicable if his definition of the city is synonymous with that of society, i.e. if he lives among others who share deep values and form a cultural group. Other points that the author has observed from the cognitive maps and the

comparison of the objects shown with those mentioned in the interviews are recorded below:

a) Markets and the Seashore are the major elements;

b) The only objects to have been 'drawn' in any form of representational manner were the small harbours that lie along the Seashore (these are shown on Cognitive map e as 'strings of beads');

c) Most of the objects mentioned in the written questionnaire were drawn in the cognitive maps. The ones that are new, such as bookstore or clinic, represent daily, small-scale needs that would only come into focus in the mind when thinking at the level of the neighbourhood rather than the whole city;

d) The people took the opportunity offered by the cognitive map to name a variety of markets such as herbalist markets, grocery market, dates market, water market and oil market. These markets reflect how the needs of the people are fully satisfied by their local environment;

e) Market such as the fishmarket, tin market, sandals market, men's wear market also reflect Kuwaiti handicrafts;

f) When it comes to buildings such as Azrael School, Mulla Abdullah Abdeen School, Al-Ahleah Library, American Missionaries' Library, Boodai Book Store, Makhawy Book Store, Al-Karje Book Store, Al-Mubarakiya School and Al-Murqab School, almost all objects named are part of old or modern sources of education.

g) Buildings like the Finance House, Britannia Bank and the Customs Building all represent the financial status of the country.

PART THREE

CHAPTER FIVE

FURTHER ANALYSIS OF THE RESPONSES

Chapter 5: Further Analysis of the Responses

5.1 Introduction

5.2 Categories

5.2.1 Objects

5.2.2 Activities

5.2.3 Adjectives

5.3 Correlations

5.3.1 Personal Details and stated Preferences

5.3.2 Correlations between Preferences

Chapter Five: Further Analysis of the Responses

5.1 Introduction:

This chapter five goes through all the received responses in two further stages that both reorganise them in order to bring deeper levels of detail to light. The first method classifies them into three categories, objects, activities and adjectives. The purpose of this is to shed light on how the people view their city: as predominantly a set of physical entities, as a place of activity or as something far less tangible. This is followed by a correlation technique in which the study explores in detail how certain responses given by the same people correlate to each other.

5.2 Categories:

In this section, all preferences and reasons stated by the respondents are collated into the three categories given below:

- Objects;
- Adjectives; and
- Activities.

People's conception of their built environment varies depending on the different images that the people formulate in their minds. Therefore, to gain an understanding that might help to create a discourse that tackles people's subjective, qualitative requirements of their built environment, the author needs to become aware of how they compose their image of Kuwait City.

Imaging the city is not only a matter of building up a recollection of its buildings, gardens, landscapes and streets. Instead, it is the result of a profound dialogue and learning mechanism between people and their surroundings, which is ongoing throughout their lives. This mechanism allows them to be able to recompose the physical and non-physical phenomena of even the most complex environment into one holistic, integrated component idea. To discover whether this

image is built up from physical features, temporal events or symbolic interpretations of these two categories allows the researcher an insight into how the city environment is reduced into a mental image.

Objects	Freq.	Activities	Freq.	Adjectives	Freq.
Souq Al-Bashoot	64	Social Activities	283	Environmental	383
Seef Palace	60	Relaxation	146	Climatic	259
Grand Mosque	53	Shopping Activity	126	Sociable	169
Souq Al-Sharq	32	Outdoor Activities	118	Modern	161
Narrow Streets	31	Craft Activities	116	Aesthetic	150
Souq Al-Hirma	30	Home Maintenance	95	Heritage	146
Al-Shamlan Sea Port	25	Municipal Work	85	Traditional	145
Sea Side	25	Car Driving	79	Commercial	108
Al-Jahra Gate	25	Socialising	71	Traffic	105
Salhia Complex	25	Cleaning	35	Safe	84
More Recreation	22	Agriculture	35	Modern	84
Kuwait Water Tower	21	Sitting	33	Beautiful	64
Bench	20	Sport Activities	31	Healthy	54
Parking Places	20	Celebrating	21	Noisy	51
Flag Square	18	Furnishing	12	Archaeological	48
Natural Stone	18	Sitting	10	Relatives	46
Bricks	18	Meeting People	9	Symbolic	41
Marble	17	Crowded	9	Identity	37
Arabic Sitting	15	Visiting	5	Light	33
The Open Square	15	Climate	4	Comfortable	29
High Raise Flats	16	Working	2	Cultural Event	29
Liberation Tower	15	Moving	2	Symbolic	32
Modern Beach	7			Nice	13
Colour	6				
Traditional Style	3				
Total	**601**		**1331**		**2271**

Table showing all things mentioned by respondents and arranged into categories

The frequency of any response is considered to be an indication of its importance. For instance, Souq Al-Bashoot, which is a traditional covered market, was the highest occurring response among all objects named in response to the questionnaire. This leads to an assumption that the covered market is regarded as an essential feature to the respondents. Furthermore, because such a high frequency of responses cannot be achieved in the answers to only one question, it indicates that the market is connected to *several* aspects of the person's life. This finding then

invites the author to try to understand why the covered market is vital for them and how it comes to make its prominent contribution to the city as a whole.

As with the previous stage in the compiling, every answer is analysed in terms of its quantitative frequency, showing a statistically graded list of elements. The table below shows the most common responses in each category. Later on, each category is described separately, the discussions guided by selection of these responses to reveal the reason for their significance.

5.2.1 Objects:

Objectives in this context mean the physical elements of the natural and man-made (built) environment. In other words, they include the natural phenomena of places and geographical features, whether they are constant (such as the sea, valleys, mountains and hills), or variable (such as the environmental conditions like rainfall, heat, animals and plant-life). The man-made environment similarly consists of physical elements (the arrangement of different artificial elements, materials, and the spaces between them as a result of people's transformations of the environment to achieve their physical functional needs) and non-physical variables (the different activities, memories, values and symbolic meanings within the geometric space). For example, in many cases an area is named not because of its physical nature but through the function or social activities related to it, such as a souq. In general, all the elements that come under the category of objects are those that suggest the shape and the image of the place.

The natural environment comprises a great variety of structures and activities that act as major elements in changing the surface, vegetation, and animal life and quality of the area as whole and, in doing so, invite people to regard it as a place. Obviously, not all changes made by mankind to the environment are benign. Many actions that seek to adapt man to the environment have brought benefits to both man and nature by enhancing the connection between society and the natural setting; some, however, have introduced into the natural environment a great varieties of unadapted structures and activities.

According to people's responses, the following discussions take on board some aspects of their environment that they raised, and which can be regarded as the primary stimulants to all consequent activities and emotional interpretations (adjectives).

Seef Palace:

The history of the palace started during the years of the Ottoman rule during the 16th century, Kuwait was an autonomous Arab Monarchy, with an administration controlled by the Sheikh of the Sabah family, which continues to be the ruling dynasty. During the first Sheikh's rule, the ground floor of one of the existing buildings in Seef Palace, the original seat of government in Kuwait, was built around 1880. Seef Palace saw one of the most dramatic and decisive events in Kuwait's history. For it was here that, in the spring of 1896, Sheikh Mubarak Al-Sabah (Mubarak the great) became the ruler of the country. Several years later, in 1899, fearing an extension of Turkish control, the ruler of Kuwait made a treaty with the United Kingdom, accepting British protection while surrendering control over external relations. In 1918, at the end of the First World War, the Ottoman Empire was dissolved and nominal Turkish sovereignty over Kuwait ended. The sheikhdom remained a self-governing British protectorate until 1961.

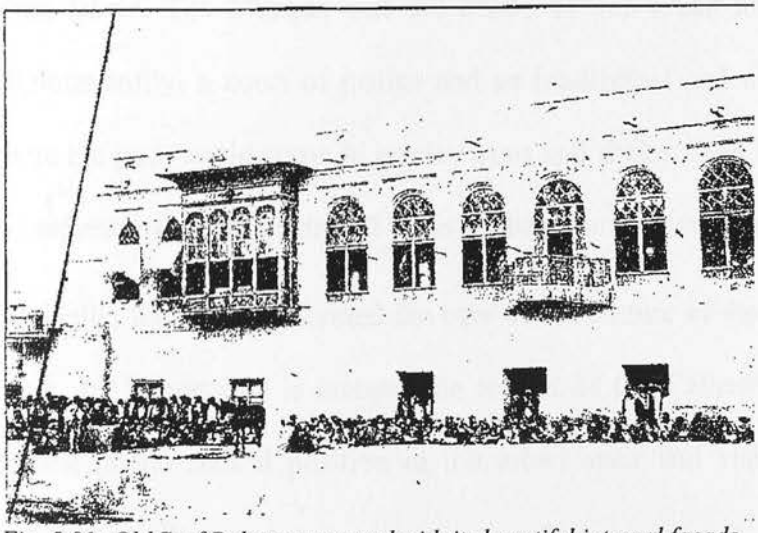


Fig. 5.01: Old Seef Palace courtyard with its beautiful internal façade

When world leaders, diplomats or VIPs visit Kuwait, their first official port of call is invariably Seef Palace, as this is the administrative headquarters of his highness the Amir of Kuwait and is one of Kuwait City's most prominent architectural landmarks, its buildings hosting events great and small.

Seef Palace is also a building that, as the findings testify (it was mentioned 60 times), occupies a special place in the hearts of Kuwaitis themselves. It is to here that they came to meet with, put their problems to, and pay their respects to the Amir and here the Amir meets his people and where thousands gathered at the Eid (Religious Feast-day) Holidays to shake his hand and bid him the season's greetings.

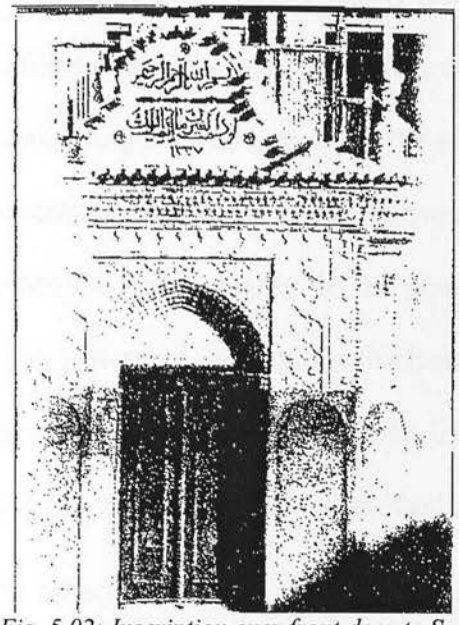


Fig. 5.02: Inscription over front door to Seef Palace

Interestingly, the front door of Seef Palace has a text on its lintel to remind the ruler of his transient position: "If others had been able to hold it [this position] forever, it would not have reached you" (see fig. 5.02).

The Grand Mosque:

In early cities, activities such as commerce, religious practice, education, law, government, cultural activities and crafts were well-integrated in the urban fabric. The Mosque was the centre of this urban and cultural life. It functioned as a religious entity, a court of justice and an intellectual and educational centre. It was here also where the poor could come to receive alms and shelter. The Mosque still serves many purposes, and represents the true spiritual focus of the urban community.

Physically, the Mosque formed the core of the texture of the city and the focal point of the city centre. Its importance is comparable to that of the Cathedral in the medieval European city, situated at the central position in the urban mass and visible from many places within and outside the built-up area.

Architecturally, the mosque is perhaps the most essential structure in the city. Its expresses a great number of spiritual, social, cosmological and philosophical values and these are all

abstracted and encapsulated from its use of enclosed space and its external form. The main purpose of the mosque is to isolate the worshipper from the outer world and provide a cherished sanctuary and place of protection.

The mosque employs two highly prominent symbolic features to characterise and lend form to its functions. These are the minaret and the dome. The minaret is often the tallest element in the surrounding structure, marking the skyline, calling to people visually and in terms of noise (the *muezzin* gives his call to prayer from a balcony high up on the minaret) and giving the city its distinctive urban quality. In the planning sense, the mosque has a significant influence on the urban pattern of the city, for the location of the other main public buildings and neighbourhood quarters come under its influence. The main paths, for instance, lead in its direction, the main souq is just beside it and the residential quarters are arranged around it like the petals of a flower.

The mosque is usually set up on the main square (*maidan*) in the heart of the city and its minaret becomes the landmark that gives a sense of geographical direction (as well as spiritual and emotional guidance) to every visitor and passer-by. Mosques varied in size and location but their place was always in relation to the main thoroughfares of the city.

However, as the city grew in size, the functions that had once been contained within the mosque were relocated to other premises in close proximity to it.

The Grand Mosque in Kuwait City is the biggest mosque in the State of Kuwait, as is befitting the city's capital status. It is also the most distinguished one due to its unique design, which reflects modern architecture but still incorporates many regional elements.

The mosque was built with concrete, stone and marble. It is also characterised by having highly stylised arches around its courtyard windows of coloured glass, and for having decorated ceramic tiles all over its walls. Another feature is its dome with Arabic Calligraphy covering the interior surface. The great dome is raise upon four giant columns. It holds very beautiful stained glass windows and an impressive chandelier hangs from its apex.

The greatest attraction for the people entering the Grand Mosque is the courtyard. This is a huge space, surrounded by concrete arches and a backdrop of Maurice tiles, which had been specially manufactured for this building. The courtyard floor is covered with white marble to reflect the sun's heat and it was been laid down in a simple geometrical design. The Mosque has more than one entrance, one for the Amir and his guests and other for the public.

Another of the Grand Mosque's interesting features is the woodwork with its wonderful Islamic motifs. The effect of the natural lighting inside the Grand Mosque is the key to its interior quality. People truly enjoy it as it filters through the stained glass windows during the daytime. The Grand Mosque is designed to reflect the modern Islamic Architecture in the 20th century. It was designed by the Iraqi architect Dr. Saleh Makia and the latest renovations were done by the author in May 2002.

The Narrow Streets:

There are many words to denote passage ways in English as in Arabic, for instance, while an avenue is usually a street with trees and so on, an alley always implies a narrow passage that serves a domestic, residential and semi-private use (Dabaiba, 1984). Whereas the word for street suggests movement to and from particular destinations, and inevitably the transporting of people and commodities on foot, by pack animal, or by vehicle, the alley, or *zuqaq*, suggests to a Kuwaiti an area set apart from public use. It denotes a narrow outdoor space with simple, limited demarcations and which does not need to connect between other spaces or streets. It leads nowhere in particular, apart from the front doors of people's houses; otherwise it is a dead-end, not even necessarily coming to a small plaza.

Streets are the outcome of the settlement, the land that has been reserved for access or other rights of way for every house that has been built. Besides carrying cars and pedestrians, streets serve many purposes. They are places where people can meet, talk, sit and wait, do a lot of daily and ceremonial activities and express themselves publicly. The street as an extension of the

house is where the children learn and discover the wider world, an outdoor space where people contact each other and society beyond the extended family or the neighbourhood group is born. Streets work as centres for public recreation, entertainment and are places for commercial and informational exchanges (see fig. 5.03).

Pedestrians are attracted by street life, activities and other people because people need one another in order to interact and satisfy their social needs. The most interesting human experiences inevitably involve other human beings. People in general prefer to walk down a

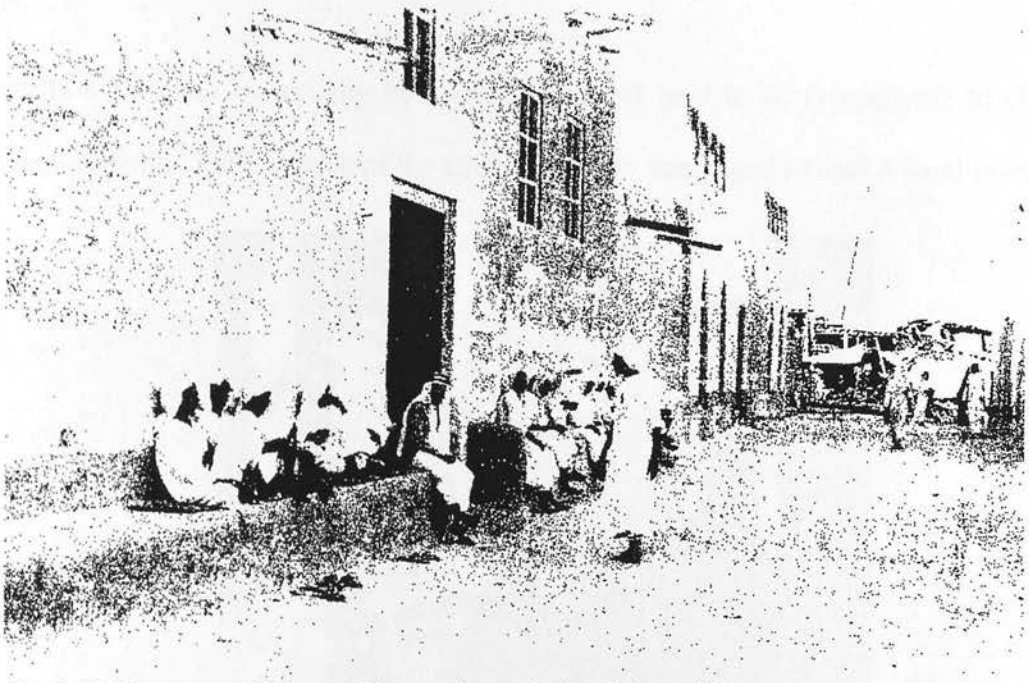


Fig. 5.03: People socialising outside a café, a typical social use of the street

busy, full street than an empty one. In other words, an attractive and interesting street is more likely to be chosen as a route to some other destination. In this context, shopping, for instance, acts as one of the most important urban attractions. The entrances to shops or cafés are typical focal points of activity and therefore attract many people.

In the traditional Arabic-Muslim city, streets were developed as narrow places that would best suit the needs and comfort of the pedestrians. Being narrow, a street reduced exposure to the extensive heat and people correspondingly adjusted to this physical quality and became closer socially. Narrow winding streets have become one of the most immediate characteristics of the

traditional Arabic-Muslim city, together with the consequent compactness (see e.g. Herdeg 1990).

Although roads designed for the motorcar (which requires wide, straight and featureless routes, not narrow and winding places with many distractions and things of social interest) have replaced narrow streets, people still express attachment for the narrow streets. Such places offered to them the experience of an holistic quality of life, in which walking, sitting, socialising and they enjoy the aesthetic values of the narrow streets as they are a part of the whole image of the city.

The traditional streets are usually bent and curved but tend to be sympathetic to climate and social requirements. Each section of the street is usually composed around a focal point, creating

Fig. 5.04: Traditional narrow street respecting human scale and the social environment

a pleasant atmosphere and helping people to orientate themselves.

On the other hand, Kuwait's modern streets are wide and straight, and it is not possible for buildings to be orientated along them towards any goal such as attracting the prevailing cool breeze. Because of their formal monotony and lack of reference points it is easy for a person to become disorientated. Moreover, these streets are designed mainly for vehicles and transport and not for the majority of the populace, they lack the organic irregularity that evolved from the use

of the human scale.

As a consequence of the massive burden placed on streets by traffic, the traditional street pattern is seen only to be in designing specifically pedestrian areas and not urban thoroughfares. This problem has arisen ever since the inhabitants of the residential areas acquired cars and naturally wished to park them as near to their houses as possible. This has also led to greater pollution, noise and danger to residents from the traffic. As yet there is no indication that planners in Kuwait have managed to achieve a balance between the resulting critical conflicts between the deep needs of the people of the city and the requirements imposed upon it by what have been taken to be more pressing economic and international needs.

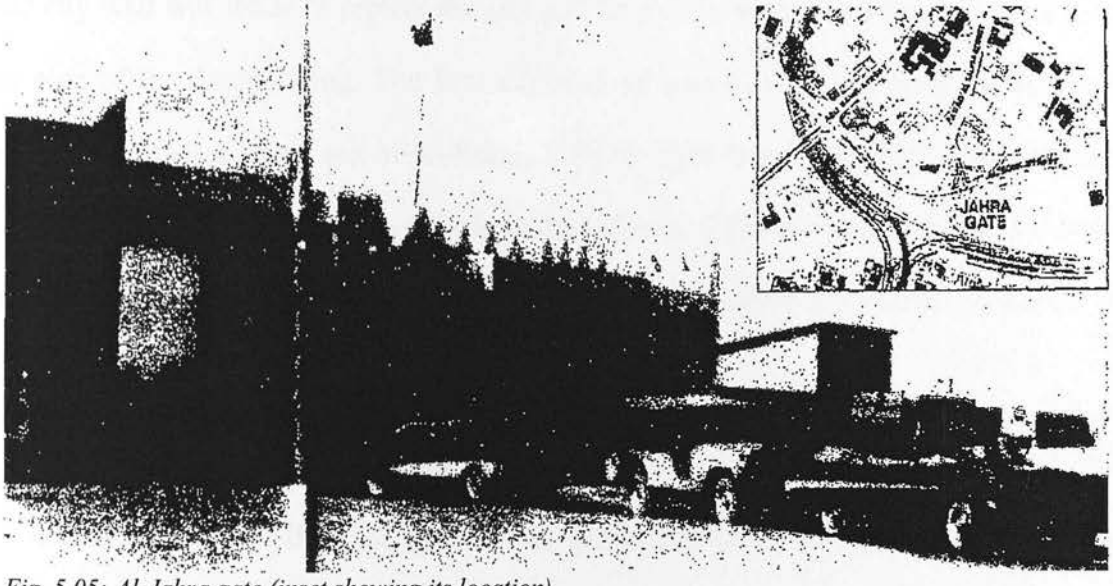


Fig. 5.05: Al-Jahra gate (inset showing its location)

Al-Jahra Gate:

Gates and towers are usually associated with the walls that surrounded the traditional city, defined it and protected it from unwanted outside influences (in terms of figure and ground – see Norberg-Schulz 1984). These three components all complement each other. Traditional Kuwait City, like most old settlements in the Arabic-Muslim culture, was surrounded by massive walls extending upwards 4-5m and 1 to 2 metres thick. These walls referred back to the rule of the Amir Abdullah the 1st in the 17th century. Generally speaking, walls were made to protect the

city against theft, outsider attacks and destruction, also to control entry and exit in peacetime.

Two types of plan were typical of Arabic-Muslim city gates: the straight gate, which was primarily a passageway, even when provided with massive doors, and the bent entrance, which served more obvious defensive uses. In their decoration, certain city gates acquired symbolic associations and were provided with appropriate visual expression. There is evidence of animal sculptures, geometric forms and astrological symbols. Their names are mostly topographical, making reference either to the local characteristic of the city or that of its suburbs. Sometimes there were references to real or mythical events associations with the gate (as in the case of Babylon).

The city wall was made to protect the city and its people from enemies which was at that time the sign of the desert living. The first city wall of Kuwait City was built during the reign of Sheikh Abdullah the first son of Al-Sabah 1762 to 1813. It was one mile long and had 5 gates but was weak and did not survive for long then. Sheikh Jaber Abdullah, the ruler between 1812 and 1859, ordered his people to build the new walls to support the old one. This new city wall had seven gates:

- *Bin Butti Derwaza* at the eastern beginning of Al-Soor, which starts from Nigaat Bin Nusuf near the Mosque of Bin Buti known today as the Al-Nusuf Mosque;
- *Al-Abdul Razzag Derwaza*, currently located at the intersection of Ahmed Al-Jaber street and Mubarak Al-Kabeer;
- *Al-Qurweiah Derwaza*, located in Fireej Al-Jinaat.
- *Al-Sheikh Derwaza*, now known as Duhaiman Derwaza and located at Saud Bin Abdul Aziz street near the Al-Faris Mosque;
- *Al-Faddag Derwaza*, currently located at Ali Al-Salem Street near the former Al-Kabliah School for girls,

- *Al-Sabaan Derwaza*, called Al-Mudairis and close to Al-Sabt Fireej; and
- *Al-Bader Derwaza* at Al-Bader Fireej and close to Al-Sager Mosque.

Sheikh Salem Mubarak Al-Sabah again ordered his people to build and reinforce the old walls again in 1917 and to do this in the fastest possible manner in order to protect the city from the immediate threat from attacks from desert tribes. The project was completed in two months. The most famous gate in this wall is Al-Jahra gate (see fig. 5.05). The city wall also used to have 26 *gula* (defence towers) around it to monitor the movements of potential enemies. Unfortunately this wall was demolished in 1957 and only parts of it and its gates still remain.

5.2.2 Activities:

The next category into which the responses fall is that of activities. Activities could be seen as one of the main aspects of environmental behaviour to contribute to the spirit of place, especially in an urban context. They also reflect many essential factors such as historical, social, cultural and religious customs in the society and how they approach issues such as privacy and hospitality. Activities occur in and bring life, memory and meaning to all urban spaces, from the streets and squares to the dwellings. Therefore houses and city qualities are, in fact, a reflection of people's way of life where they can express themselves. Cities act as a focus for people meetings, entertainment, parading and campaigning, for social occasions, and for commercial and information exchanges. Thus, through activities urban spaces become important components to the social environment.

The old city of Kuwait offered a good example of an urban form constructed from a hierarchy of public squares (*maidans*) and linear pedestrian streets that were typically busy with crafts shops and other commercial activities, coffee-houses and so on. Therefore the street became more than a thoroughfare; it was a place to be in. These places were lively. They were shaded and the shops were varied and opened out to the street with a huge number of diverse entrances and displays of

goods to buy. Most of these activities took place outdoors and the first priority was given to pedestrians rather than traffic. These places were protected from the harsh climate by being narrow and providing many shaded areas. They were safe for children because there was little traffic, plenty of people were constantly milling about and the streets were monitored by the neighbourhood *muhtasib*. This provided a sense of security so that crime and vandalism were rare and social contact was easily maintained.

After the discovery of oil, Kuwait City expanded enormously. New wide roads were built and new housing projects introduced by the government within its master plan for the city. Additionally, the city underwent a great population growth exacerbated by a high immigration rate from the rural areas. Consequently, families became separated from their relations, each seeking a new plot of land somewhere far away on which to build a new house, activities became highly segregated and isolated from one another and the car became the most dominant feature in the city.

These changes in the life style transformed many public activities into private ones and reduced the significance of outdoor spaces in the city. The important daily activities that once belonged to the public realm of the city covered many of the general movements in daily life: shopping, entertainment, incidental conversation, trips to work or school and the traditional promenade. Years ago, a walk to the shops offered each individual the high likelihood of interacting with other people both on the way to, inside and returning from the shop. Now the layout of the streets demands that everybody drive to the supermarket, which means that interactions only take place in the commercial premises, while the trip involves none. Consequently, one is far less likely to know the other customers or those who work there, which means that little interaction takes place in the shop in any case. Children also rarely walk to school; they are often taken there by car or bus.

Similarly entertainment in the past used to be a public event which took place in the outdoor

spaces. Nowadays entertainment is dominated by television, which is viewed privately at home. The telephone has done much to replace the informal neighbourhood meetings outside and the mobile phone, popularity among all members of society especially children of school age, has reduced the art of personal communication to one of speech and hearing alone. People no longer meet through the senses of sight or touch harder, and in this process many of the basic skills of communication, conversation and expression between members of the society are no longer learned to the same extent. Even personal visits to people's houses have diminished, which may further the separation and estrangement between the members of the society and each other, as well as their attachment to their built environment.

It is therefore encouraging to note that the total activities (1331) mentioned by the respondents outnumber the objects (601) that they mentioned by a massive margin. This is a powerful indication that they put a far greater weight on social engagement rather than on physical phenomena of the city, and that their definition of the city is much that it is the locus of action. The lesson of this to planners and architects is that there is a far greater latent need and desire for the city to provide places of activity than there is for the city to be a place of monumental and impressive architectural works. Such a finding contradicts with the nature of the master plans that have been typically devised by urban decision-makers, who seek to provide the citizens with fabulous and eye-catching objects but who devote less attention to social needs.

Religious and Social Activities:

People's faith and spiritual values are reflected in the ways in which their daily life is organised and in their whole way of life. Every task they get involved in, every time they greet a friend or see their family, they follow principles of behaviour that have been learnt from a mixture of religious and social codes passed down from generation which are natural rather than learnt.

Islam does not directly affect the physical environment relation to planning and architecture in that it does not directly address housing or planning and does not lay down what would be

recognised today as planning regulations. However, it permeates every aspect of behaviour, delineating models for appropriate social conduct, family life and relationships and it is these that, indirectly, have a far-reaching effect on the cityscape such that the built qualities of all Arabic-Muslim cities can be traced back to Islamic ideals. Although no rules exist in the Quran reading shape or style of housing, the attitudes that these teachings instil in their followers are reflected in their houses. These teachings are part and parcel of the culture of the people, which they carry through their lives wherever they may find themselves. The built environment, as a complement to the way of life, has been shaped to facilitate the practices with which believers of Islam feel comfortable.

As in other Muslim societies, in Kuwait, there are several social, traditional and religious festivals and celebrations. As is emphasised again and again in the survey responses, indigenous houses allowed their inhabitants the freedom to entertain or to carry out their activities without causing disturbance to others. For example, preparations for wedding parties started at least one month before the wedding day. Different types of cakes, snacks and other kinds of food were made collectively by a large group of invited relatives and friends. The house where the ceremony was going to take place therefore started to receive people as long as a month before the actual occasion. Since this occasion involves large gatherings at prescribed times, the spaces of the house, indoor and outdoor needed to be comfortable, accessible, to protect against excessive heat and cold and be spacious. Outdoor spaces, such as the courtyard, garden and the roof were used as extensions to the house interior, not only during the celebration days but for the daily activities as well. Nonetheless, the sheer number of people could put an enormous strain on the spaces of one house for five to seven days, particularly since men and women must be separated. So neighbours, by their sense of belonging to a community as co-operative members could always be relied upon to help the groom's family by opening up their own houses to guests.

Craft Works:

The traditional crafts markets formed some of the most socially vibrant elements of the city. Kuwait City used to host a large number of traditional craft skills. In the early times the craft industry was an important source of living and the craftsmen were responsible for training their sons in their craft in order to give them a good start in life. These crafts include cloak maker, leather working, basketry, furniture making, *dhow*-builder, perfumery, pottery and jewellery.

Today, as a result of competition from imported goods, this craft tradition is much reduced. A lot of what is available from the shops is not of very good quality. Another consequence that has greater influence on the social life of the city is that, people in the shops have lost the opportunity to talk with the person who has made the goods that they wish to buy. This has eliminated an entire level of social contact, a source of information and interest, a sense of the city as a place of production and ingenuity and specialist knowledge.

Car Driving:

Cars have become an overwhelming part of daily life in Kuwait City and, at the same time, moving about in the city has become increasingly difficult and the car has become even more essential. As the pressure for homes and working spaces grew, so too did the demand for roads and means of transport. Cars are now the most useful means of transport available. The planning regulations in Kuwait now insist on 20 car parking for every10 houses. This in turn has created many social, economic and environmental problems. Air pollution causes illness among the people, the stink of exhausts is increasingly covering the smells and scents of the city that are part of the pleasure of life, the constant thunder of engines disturbs people's sleep, disrupts the tranquillity of the city and upsets children. Many people, children and adults, are killed every year because of high speed and careless driving. The city centre has progressively become a centre for the car, not the human individual or society.

In addition to that, wide streets and highway form barriers between those houses on both sides. Where social activity had naturally been possible from facing neighbours, it is now impossible. The old town, developed mostly for pedestrians had encouraged people to meet and communicate. Benches placed along the streets invited them to sit and have a chat. In other words, the roads created the social environment, gathering people and bringing them close to each other.

Meeting People:

Meeting people is one of the most enjoyed activities in people's everyday life. People meet to talk, drink tea and coffee, to play and have fun. Meeting people is one of the society's customs and traditions and is the main reason why human cultures have developed the city as a place to live. It is obligatory in the case of relatives and friends to visit each other and see if they need any help. Meeting people could happen purposely, when time has been set aide to visit someone at home, at work or in celebrations and festivals. More importantly (see, e.g. Gehl, 1987), it could happen by chance in a street, at the beach, in a café, at the market, or, in other words, in the public realm of the city.

It is noticeable that this activity peaks, in the evening after people come back from work, on Friday, the weekend and during Ramadan the Holy Month where most of the interactions and activities take place at night. During Ramadan, which lasts for thirty days, people are required to fast during the day and can only take food or water in the hours between sunrise and sunset. These periods see an enthusiastic celebration, with people gathering from throughout the city in public spaces or in each other's homes, to share food, coffee and fruit juices. In addition to these celebrations, feasts and other special times which is an opportunity for them to meet and have a good time.

Urban spaces of the old town were extremely inviting places to meet people, being protected from the direct intensive heat and from the sandy winds, through the compactness of urban

fabric. This space pattern offered the means for the built environment to afford congenial climatic conditions for the inhabitants to meet and carry out their social activities out of doors. To enhance this correlation between social needs and physical spaces, the streets and squares were usually provided with benches to sit on and contained physical features that demonstrated the social identity of the inhabitants.

5.2.3 Adjectives

Man's creativity in architecture is most evidently apparent in his everlasting works in temples, theaters, magnificent palaces, beautiful gardens, roads and large multi-purpose shopping malls All building systems and individual housings have an impression on society and on its individuals. This impression could be revealed in many aspects – aesthetic, social, political, behavioural, recreational etc. In the holistic phenomenon of the urban built environment, all these factors gather together and create a whole that is composed of people's mental interpretations and impressions.

Across all the responses to the questionnaire, the adjectives that are the distillation in the mind of architectural and social qualities overwhelmingly represent the majority category. Adjectives were states 2271 times, demonstrating that they have a huge dominance in people's minds over the objects of the city. This means that, to the respondents, Kuwait City is a locus of meanings and of qualities far more than it is one of objects and even far more than it is a place of activities.

Environmental and climatic:

As shown in the table, the adjective 'environmental' is, by a long way, the most dominant actor of all the responses. As this embraces the notion of 'climatic', these two adjectives are discussed together. Features like narrow streets compact buildings and the courtyard that were mentioned many times all contribute to the environmental quality of the city and this was expressed directly many times by the respondents. This shows the extent to which people are aware that their

indigenous architecture was not only well-adapted to its environment but made a positive contribution to it. Their understanding of architecture was that is offers more than just a shelter, more than a spectacle of arches, domes, minarets or beautiful *mushrabiyah* window screens. Architecture was an expression of culture, beliefs and social structure that united the people with their natural place.

In response to the environment, its characteristics dominated by a demanding and harsh climate, the indigenous architecture came to focus on the enclosed space, on the inside as opposed to the façade or the general exterior articulation of a building. At a larger scale, these houses were collected together into a neighbourhood accessible through a single entrance point, which leads to an inner private passageway from which the individual dwelling can be reached. Everywhere was shade, cooling breezes and yet no feeling of being separated from the environment. This in turn gave the indigenous architecture of the traditional town its unmistakable appearance, which still survives today in many examples of ancient towns.

Environmental values were also stated for many outdoor phenomena. The issue was raised in people's minds when they talked of their courtyards, of introducing plants and animals into the household and in their appreciation of the Seashore and the parks of Kuwait City. As a negative, it was mentioned in terms of the traffic, which is recognised as being a force that conflicts with the environment and damages it through air pollution. These answers indicate that, dominant in people's minds, although they are discussing a city, itself an unnatural, man-made environment, are issues of nature and their need to retain a strong mental attachment to it.

Compactness and Social Life:

People in the survey appreciated the compactness of the traditional city as a common characteristic that gave them the sense of belonging, unity, a feeling of security and a great chance for social co-operation. Unity has always been a fundamental principle in the planning of the old Arab-Islamic cities, reflected in the shaping of traditional architecture and in the

interconnecting patterns of buildings to form a unified city body. Unity is also expressed in less physical terms in the interconnection between spaces for worship, education, markets, the making of things and for private living. It is expressed also through the profound interrelation of the built environment with the land and climate through its forms and use of materials.

Old Kuwait grew as an organic city. Its structure, seen from the air, is visually astounding (see fig. 5.06). There is a beauty in its overall form and interest in the quality and diversity of its architectural patterns. Infinite variety of prospect existed within the city. Every space, every narrow street, every form, grew over time to answer specific needs, and as the city became ramified, it became the expression of the physical and socio development of the society.

Fig. 5.06: Kuwait City viewed from the air

Physically, the old town of Kuwait is a unique urban form, by its location and the natural geographical features it gained a crescent shape with a massive wall around its border protecting it from the attacks of both man and the scorching sandstorms. Not only was the town strategically located, oriented and protected, but the interior was also formed to satisfy everyday life needs. The houses that the inhabitants built evolved organically out of their requirements. There was no pretension about their design. Simple, dignified and made from a limited range of materials and colours, their houses were built close to each other, protecting one another from the heat of the sun and lending physical as

well as social support. Built generally to enclose a courtyard, they became the entity around which the families' social lives revolved.

It is possible to say that this city plan gave the real picture of the social structure, beliefs, traditions, culture and way of life. It indicates that the society was highly integrated, compact, united and classless. The whole population constituted one big family, sharing everything, physically and emotionally. Adults would work or go to work together, spend their free time playing, drinking tea or shopping together. Children would play, go to school and grow up in social groups. It was not seen to be presumptuous if a child went to a neighbour's house to take some food or play with the children of that household without informing his own family. This was because all people felt that they were parents to every child in the community and their house was always open to them as well as to any adults.

These aspects also reflect a range of other factors, such as the relatively small area of the city, tribal kinship or friendship and craft connections associated with each neighbourhood or *fireej*, which, in turn, leant the quality of shared values among each circle of neighbours.

In short, the adoption of a system of compactness made of Kuwait City a masterpiece of the type of organic planning that grew as a solution to basic problems and needs. Compactness was a brilliant solution to the social, cultural and physical requirements of the city. On the other hand, and as also revealed the answers of the respondents, this type of planning, particularly in the housing areas, can also be criticised for its inability to adapt itself to the demands placed on the city by the automobile. Moreover, many younger respondents equated traditional housing with a low standard of living and remarked that the modern villa represented a more desirable lifestyle. The author feels that this attitude might stem from a lack of experience and knowledge of the benefits offered by the indigenous architecture. The criticisms, however, cannot be ignored and the challenge stands to find a way to instil the meanings and values that were at the core of traditional architecture in a modern living environment.

5.3 Correlations

This section makes a further analysis of the survey findings by correlating some particular personal details with responses given to selected questions. Therefore, these correlations are discussed in order to discover if there are any trends between what is being said and who is saying it. This correlation is organised into two groups: correlations between personal details and the responses of some selected questions; and correlations between some reasons and preferences mentioned in the responses of more than one question.

5.3.1 Personal Details and stated Preferences:

Age and places considered to give Kuwait City its character:

	Under-18	19-35	36-55	56-Over
Souq Al-Sharq	2	10	12	7
Souq Al-Bashoot	2	9	13	7
Kuwait Tower	2	5	8	2
Dasman	2	4	5	2
Al-Shamlan Sea Port	1	0	3	3

It is noticeable that Souq Al-Sharq was mostly mentioned by people aged 19-35. That is because at this age of life there is a greater social for an enjoyable and entertaining time. In Kuwait City, especially in the summer time, the seaside onto which this souq overlooks is the most preferable place for sports and entertainment.

Slightly older people (36 and over) mentioned the old Souq Al-Bashoot. This could be due, on one hand, to the relevance of pleasant environment in which to live and work. In general, this is an important time of life to affirm ones stature and role in society and less attention is put on entertaining oneself.

In Kuwait, the majority of people aged 60 and have retired. Hence their lives become quieter and

less active. In Kuwait City, many of them like to go into clubs or coffee shops, meet people and spend sometime talking, playing chess, card or smoke the *shi-shah* pipe, while other older people prefer to stay at home where they look to each other for company. Many older people spend much of their time in the mosques where they pray, meet other people, chat with them and discuss moral and religious matters.

Gender and most liked places in the city:

	Male	Female
Salhiya Complex	21	10
Grand Mosque	17	9
Seef Palace	5	7
Souq Al-Hirma	3	2
Liberation Tower	3	2
Sea Aquarium	2	1

All people, but mostly the young, are attracted to the public places where they can meet a lot of people and see different activities. The Salhiya Complex, the Grand Mosque and Seef Palace are the highest responses frequently mentioned. In general, these places are more preferred by men than women. It can be said that the time spend by women in public places is very short comparing with the time that they spend at home, looking after the children and doing the house work. The local culture, as is typical among Islamic countries, considers these domestic tasks to be the domain of the female household members. Nevertheless, there are many occasions when women appear in the public places, such as weddings, festivals and celebrations, work, shopping or the like. Overall, though, the priority is always given to work in the house.

Age and buildings disliked in the city:

	Under-18	19-35	36-55	56-Over
High Rise Flats	2	4	10	4
Workshops in the City	1	2	8	0
Some Ruined Buildings	0	2	3	1
The Fish Market	0	2	0	2

It appears that the high type of residence (meaning any residential building over four storeys) is the thing people most dislike in their city, but this is most strongly felt among people aged 36 and over. Most people of this age will have had much experience of living in one-storey houses and may have contemplated the prospect of moving into these flats for some reasons.

These high-rise flats may provide places for living but their design and organisation, as has been discussed in the previous chapter, is seen to be socially and culturally inappropriate. Many times people commented that these flats were 'crowded', a remark that must be considered in the light of the nostalgia that the same people have towards the highly compacted traditional urban fabric. Yet the crowdedness of the high-rise buildings is seen to produce alienation and perhaps conflict, whereas the horizontal compactness of the old city enhanced social ties. Additionally, high-rise buildings are said to offer a lack of visual and functional order and a lack of facilities, which discourages many social activities and the active interaction of residents.

The high-rise Swaber Project is a new apartment building that contains hundreds of apartments in a very dense area in the heart of Kuwait City. People who live here are thought of as having little social life; those who live there live almost in isolation and are unable to contribute to the social entity of the city to the fullest of their abilities. High-rise building are also seen to destroy the urban landscape and, with it, the social values which existed in Kuwait society. They require enormous cooling units and are not even slightly sheltered from the wind, air-borne dust and sunlight. On the contrary, by being raised high, they *increase* their exposure to these problematic elements.

Place of living and description of the neighbourhood:

	Al-Sharq	Al-Wosta	Jibla	Dasman	Murghab	Al-Seef	Al-Salhia
Cooperative	8	3	3	1	2	2	2
Good Relations	6	4	1	1	2	1	0

Socially Integrated	3	2	2	0	2	0	0
Conservative	0	0	0	0	2	0	0
Meet Regularly	0	0	1	0	1	0	0

When asked what qualities they liked best about their neighbourhoods, they were predominantly subjective. Most often mentioned the cooperation and the good relationships between neighbours. They described their neighbourhood as friendly, helpful and generally supportive, showing that they identified their neighbourhoods as places that fostered relationships between their inhabitants. These feelings reflect their manner, culture and sense of belonging. The variety of descriptions given to each residential area is a product of the way people characterise both their own and their neighbour's social character, not because of its physical qualities, but because of the day to day living experiences within it.

From discussions with the interviewees, the author found that almost all of them have lived more than 15 years in the one neighbourhood place and most areas were inhabited by their relatives. The length of stay and kinship are thus important factors in making good relationships. Relatives are, more than a source of sociability; a source of help. For instance, many young working couples with new families depended on their relatives to take care of their children and their households while they were away. It is also a cultural characteristic that the hub of this kinship is always the parent, particularly the mother, a figure whose influence over her children continues long after they marry and have children, in fact, until she dies.

On the other side, while planners, designers and architects may not have a direct effect either on the kinds of people that will live next to one another or how neighbours will interact, they can create physical settings that are supportive of neighbouring or instil a sense of belonging. In other words, if people are important in establishing a sense of neighbourhood, so too is physical design, for certain physical amenities, such as the mosque, coffee-house, open space and shops

offer situations where people can meet, trade news and exchange information. Moreover, street activities and furniture are amenities that, in open urban spaces, can become the heart of neighbourhood life. Children can play there while their mothers or sisters watch from windows or doorways, and older residents can get together to talk and observe their neighbours' activities.

Age of respondents and the preferred type of housing:

	Under-18	*19-35*	*36-55*	*56-Over*
Villa Type	2	10	9	6
Traditional Style	0	0	7	4
Flat	1	4	0	0
Farmhouse	0	0	0	3

It is obvious from the table above that the majority of all ages have chosen the villa type. In this context the word 'villa' is of a dwelling with numerous large rooms and surrounded by a garden. It does not connote any specific features or architectural details. The factors of the size of the Kuwaiti family, the need for separate bathrooms for boys and girls, the hot climate and the family customs and social activities, all require a lot of large spaces. The villa is seen as the building type most suited to providing for these by those in the 19-35 years old age group.

The traditional house with its distinctive courtyard usually offered enough spaces to meet these different needs and activities of the Kuwaiti family but this seems to be recognised mainly by older people. These respondents will have had extensive experience of the traditional courtyard house and all recalled how well their old houses suited their requirements and how they easily accommodated large parties and gatherings. They also regard these houses as symbolising not only their personal histories but that and the culture of the society as a whole.

The flat was preferred only by the younger people. Buying a plot of land, building a house and furnishing it needs a great input of time, effort and money, which cannot be afforded by many at a early stage of their mature life. The family size for the young usually does not exceed 2 or 3

persons and therefore a flat is quite suitable for them. The older respondents stated firmly that they could not live in small flats; they prefer to be in contact with wide spaces and fear that the lifts and other mechanical devices upon which life in a flat is disproportionately dependent, may not always be reliable. The older person who chose a farmhouse can be said to have chosen a place rather than a house type. He expressed through his preference a love for nature, fresh air and the sense of freedom, which is more clearly associated with the Bedouin people.

5.3.2 Correlations between Preferences:

This sub-section looks at several subjective topics that have direct or indirect impact on the built environment.

What place is important to the city; and what do you not like in recent changes to the city?

In question one twenty five people chose the Al-Sharq as an important place because of the social activities. In question twelve, there were fourteen persons who did not like the destruction of some of old buildings in the town because they considered them as historical and cultural buildings. By comparing these answers with the original draft of responses, it was found that twelve persons gave the same answers for both questions. That is to say, there is correlation among the social activities, history and the culture of the society.

Furthermore, this means that these people value the old town not only because it contains social activities, but also because for them it has historical and cultural significance. However, social activities of any society are the main character and expressions of culture in the society. One can argue that all the daily life activities that happen in every neighbourhood or in each street are practical reflections of people's customs and traditions.

What do you like about the old city; what would you like to see done in the city?

Twenty respondents said that they liked the compact planning in the old town, mainly because it is a traditional way of building. Fourteen of these answered in question eleven that they wished

persons and therefore a flat is quite suitable for them. The older respondents stated firmly that they could not live in small flats; they prefer to be in contact with wide spaces and fear that the lifts and other mechanical devices upon which life in a flat is disproportionately dependent, may not always be reliable. The older person who chose a farmhouse can be said to have chosen a place rather than a house type. He expressed through his preference a love for nature, fresh air and the sense of freedom, which is more clearly associated with the Bedouin people.

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to maintain the old buildings because they symbolise Kuwaiti identity. This answer is a sign that there is a correlation between what they define as tradition and their understanding of the meaning of identity. The word tradition is not used to mean 'old', but rather refers to the relation between people and place. It is possible to say that when people call something 'traditional', this embraces its history and all their lifetime experiences of it. In other words, tradition for them means their roots, memories and heritage, the received cultural information and their way of life.

The traditional environment is the scene where culturally meaningful acts have taken place. For instance it is a habit if a neighbour has visitor or guest coming from afar place, for each neighbour, without exception, to welcome the visitor, and sometimes invite them to their own houses and slaughter a goat as a show of hospitality. The indigenous architecture is thus a repository of memory, culture and myth.

In Kuwait old town, as in many old towns throughout the world, kinship and social ties played a notable role in fostering stability and a sense of belonging among the inhabitants. People felt safe in their lives, and that their children and properties were secure. They felt that they could travel, even for a long time, without needing to worry about their house and belongings because their neighbours were close by. This often happened when someone went on a pilgrimage, to work or to visit a distant country.

What place is important to the city; and what is an essential quality in the city?

All of the twenty-five who chose Souq Al-Sharq as an important place in question 1 were among the twenty-nine who mentioned the strengthening of social relations as an essential quality in the old town. This reflects that the relationship between the members of the community, although they are enhanced in all spheres of people's lives, are most strongly forged in the market place. It has already been indicated that the souq is the core of the Arabic-Muslim city, that it offers a fit place for informal meetings and for talking at length with draftsmen and traders. The correlation identified here provides strong evidence for these insights.

PART THREE

CHAPTER SIX

DIMENSIONS

Chapter 6: Dimensions

6.1 Introduction:

Dimensions can be defined as the motivating forces behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory. Dimensions can be divided into two types: external and internal. External motives consist of various elements such as climate, construction materials and site topography, whereas internal ones include the social needs for interaction and participation. Every building, every emotion, every action will be a result of a number of these underlying requirements. Maslow's theory of human motivation (1954) classifies these motivations as follows:

Physiological needs: Such needs, for example for food, water and shelter, are usually taken as the starting point for motivation. Undoubtedly these physiological needs are the most prominent of all. For the person who is extremely and dangerously hungry, no other interests exist but food. Lack of safety, love and esteem and similar non-physiological needs are pushed into the background. Once a person has satisfied the basic physiological needs, then other (higher) needs register; when these in turn are satisfied, again new (and still higher) needs emerge. In this context, architecture has the duty to satisfy the need of shelter, warmth and many other physiological needs.

Safety needs: Once the physiological needs have been gratified, the safety needs then emerge (stability, security, dependency, protection, freedom from fear, from anxiety and chaos, need for structure, order, law and so on). The safety needs can be seen as dominant in times of emergencies, e.g. war, natural disasters and social unrest. The need for safety becomes very urgent socially whenever there are real threats to law, to order, and the authority of society. In architectural terms, many elements of the building connote messages of safety to the user, for example through communicating a sense of 'defensible space' (Newman, 1973).

Belonging and love needs: Needs for love and a feeling of belonging come to the forefront once the physiological and the safety needs have been met. In times of loneliness people feel keenly

the absence of company (friends, relatives or children) and emotions that convey loneliness, ostracism, rejection, rootlessness and loss have great power and can have a huge effect on a person's physiological well-being. As has been established in both the theoretical and field study components to this thesis, architecture can, in its form and in its ability to physically convey a manner of relationship between neighbours and communities, be symbolised in people's thoughts in terms of belonging or of isolation and loneliness.

Esteem needs: All people have a need or desire for a stable, firm social base, for self-respect, self-esteem and the esteem of others in the society. Self-esteem usually leads to a feeling of confidence in oneself, of ones own worth, strength, capability and adequacy. It encourages people to make themselves useful and necessary to their society. Thwarting these needs produces feelings of inferiority, helplessness and weakness. Many people express their social standing through their architecture, using it either to send messages of their wealth, of the size of their families, of their observance of cultural conventions and of their taste in things of quality.

The need for self-actualisation: There is a constant desire within all individuals to establish for themselves an ontological sense of place within the universe, a sense of purpose in the great and mysterious phenomenon of existence. All people hunger for an answer to the questions of why we are here, of what life itself means or what it is for. Maslow suggests that (1954) these questions hide the profound desire of people to allow their true selves to emerge, to self-actualise (literally, to turn their intangible identity into an actual and observable phenomenon). Self-actualisation refers to the tendency for individuals to make actual what they are only in potential.

Cognitive and aesthetic needs: The aesthetic need is, to some individuals, a basic need with direct physiological implications. Ugliness causes stress and damages the physical body, while some believe that ailments can be cured by beautiful surroundings or they actively crave for beauty. Yet the aesthetic need is not basic, as its meaning varies from one society to another according to history, custom, tradition and cultural background (Maslow 1954).

Dimensions are not given directly by the respondents in a questionnaire survey because they are hidden forces that lie behind many answers, rather than in one alone. In many cases, they might never be explicitly stated once but are forces that can be inferred from the overall profile of attitudes and thoughts revealed across a number of answers. It is for the researcher to make these inferences through proposing a certain plausible dimension (such as 'security' or 'spiritual') related to needs, which may play a part in the responses. The analysis then is to collate all answers that are driven by these hidden needs. Thus, the fact that children can play in the pedestrian street or that they are afraid to cross a busy street both indicate the existence of a 'security' need, although one does so positively, the other negatively. Similarly, the joy of sleeping on the roof, because it connects one to the infinite universe, reveals a spiritual need.

6.2 The Dimensions:

With reference to the responses and their compilation, particularly to the answers of the reasons why, the responses can be grouped into different dimensions. The following points came to light in the process of this analytical step:

- In many cases, one response revealed a number of dimensions;
- If a dimension is not listed, this does not mean that it is not important. Such a dimension may simply have escaped the author's notice. This research is not guided by the intention of supplying a comprehensive and exhaustive list of all the dimensions that exist in people's minds – such a task would require enormous ambition. The idea is to indicate a range of underlying motivations that have an impact on people's evaluation of Kuwait City today in order to provide information to feed forward into the discourse for indigenous architecture in modern Kuwait;
- Descriptions that follow are based mainly on the study area, and avoid generalities as much as possible; and, finally

- Dimensions are comprehensive modes of thought and therefore embrace all categories (objects, activities and adjectives) that are needed to fulfil these forces or motivation.

The table below shows the main dimensions listed in order of the number of responses:

Dimension	Responses	Freq.	Total
Socio-Cultural	Visiting Relatives	118	363
	Social Activities	83	
	Safety	45	
	Life Style	31	
	Cooperation	31	
	Unity	29	
	Celebrations	26	
Cultural	Religious	91	239
	Social Activities	83	
	Identity	37	
	Privacy	23	
	Outside Shelter	5	
Climatic	Comfort	84	238
	Agriculture	35	
	Nature	33	
	North Direction	21	
	Air Conditioner	20	
	Shadow	20	
	Pollution	17	
	Mushrabiyah	4	
	Timber	2	
	Concrete	2	
Environmental	Quietness	71	198
	Noise	51	
	Front Garden	29	
	Seaside	25	
	Pollution	17	
	Smell	5	
Functional	Comfortable	84	193
	Souq Al-Sharq	32	
	Store Room	25	
	Parking Places	20	
	Arabic Sitting	15	
	Arches	13	
	Mushrabiyah	4	
Architectural	Compact Building	59	179
	Landmark	44	
	Narrow Streets	31	
	Arches	13	
	Aluminium	7	
	Colour	6	
	The Unity of Façade	6	
	Flat	4	
	Mushrabiyah	4	
	Traditional Style	3	
	Concrete	2	
	Seef Palace	60	
	Archaeology	48	

Historical	Souq Al-Hareem Al-Jahra Gate	30 25	163
Aesthetic Preference	Front Garden Simple Beautiful Good View Seaside	40 33 31 30 25	159
Heritage	Traditional Clothes Souq Al-Hareem Al-Shamam Seaport Seaman Village	55 30 25 10	120
Commercial	Tourist Shopping Centres Big Apartment	46 29 20	95
Educational	Seef Palace Public Theatre Bookcase T.V. Public Library	60 10 7 7 4	88
Spatial	Al-Shamlan Sea Port Al-Jahra Gate Flag Square Human Scale	25 25 18 12	80
Location	Near the Sea	73	73
Religious	Grand Mosque	53	53
Recreational	Sea Side Recreation Places Leisure Centres	25 22 5	52
Cost/Economy	Maintenance Economic Reasons	40 10	50
Symbolic	Symbol of Modernisation Colour of Sky/Nature Tradition	16 6 3	25

6.2.1 The Social Dimension:

Just as the structural design in indigenous architecture is determined by climate, type of building materials and the way of construction, then the internal spatial organisation of the house, of the city centres and public spaces are the result of social forces. These include religion, tradition and the way of life, that body of principles, cognition, feelings and behaviour shared among a group of people in several ways (Altman, 1980). Beliefs, perceptions, values, norms, customs and the

manners of a people are reflected in their social organisation and in the whole body of their traditions.

From the survey responses, people's understanding of this issue came through their mention of many adjectives and activities such as social integration, social activities, unity, meeting people and co-operation. By this they indicated that the people of a city need to be primarily bound by a common world view ideals and choices and by a set of social rules and values which, at the end, produce a life style as embodied in their image of their local environment. In turn, all these principles and values influence the house and town formation such that the form of the built environment becomes a cultural expression of the society, translating the socio-cultural values into buildings and spaces, into physical containers, in which the society lives and evolves. In other words, people need to influence or shape their environment in the way that they can use it to communicate their socio-cultural values (Rapoport, 1969; Altman, 1980).

The socio-cultural forces are very important in human life across time because they largely shape people's goals. In this concern, the physical environment plays a critical role in satisfying the human social, cultural needs and values, which have to do with his/her relations and communications with others. In this context, Lynch (1981) writes that:

> A house in poor physical condition, but which you own and which gives you secure social status, has an entirely different meaning than a similar house to which one is forcibly exiled.

There is a traditional Kuwaiti proverb that, touching on the same issue, says *'Al-Daar be-Ahlaha'*. This means that the house as a built-form has no significance, sense or value without its people.

Man is a social creature and has needs to make contact with others, to be with others for knowledge, entertainment and so on. Gehl (1980) defines man's social needs and categorises them into:

- Needs of contact: People need to meet each other in a social atmosphere, with a wide range of people in as many different kinds of experiences and situations as possible;
- Needs of identity: Everybody needs to be within a group, needs to feel that he belongs to a particular group, family or community. It is the need to be known and to carry identity;
- Needs of knowledge: This means familiarity with other people in the society and knowing their way of life, tradition and customs; finally
- Needs of entertainment, feeling at ease, happiness and relax. A town plan which is unable to offer the possibility of satisfying these needs is likely to be unsuccessful (Gehl, 1980).

To the Kuwaiti the family is the core of all social life. It is the root from which all the socio-cultural characteristics derive. Socially, the family is a negation of absolute individualism; the system controls the people and dominates their behaviour. Personal independence is restricted because of the constraints laid down by the family system.

Traditionally, Kuwaiti houses consisted of a shaded central space (the courtyard) with all rooms, except those (most often just one) reserved for reception, accommodating and entertaining of guests opening from it. This *diwanya* (guestroom) was always located just beside the entrance ton the house from the street and it was screened from the passage to the courtyard. This layout is still used in modern housing but some other changes have taken place. For instance, the living room (*sala*) is new introduction, a room that combines the central courtyard and the traditional family salon. It serves both the functions of a family living room and a hall giving access to other rooms.

The most significant feature of the Kuwaiti house (which clearly reflects the people's socio-cultural life) is the division of the house into three distinct parts. The first is absolutely private and is dedicated entirely to the family use. This includes the bedrooms. The second is for the use of the family and for receiving female guests, as well as relatives and close friends. This part

consists of the *sala* and the courtyard. The third part, which is always located in the front of the house, is the reception domain. It includes the guestroom and has its own WC and cloakroom. The advantage of functional flexibility was embedded in the traditional house, where most of the rooms were of the same size and shape. Therefore, their function was not rigidly determined and they could be readily adapted according to the changing needs, for example in responding to changes in the family size as the children came to marry and stayed with the family in the same house.

6.2.2 The Cultural Dimension:

As was conformed in the theory chapter, different emotional concepts are inherited by people from their own cultural values, and these are used to recognise a range of possible events and ideas. Lang (1988) argues that cultures all over the world are unique because they have their own historical backgrounds, for each cultural value is the result of the long term and adaptive engagement of people with their physical and social environment.

Most of the responses that revealed this dimension were concentrated on privacy, blood relations, conservatism and the separation of domestic domains. All of these aspects relate to social customs, traditions and cultural interpretations that are harmonious with Islamic teachings from early times up to the present. In brief, Kuwaiti people (particularly in some areas like Jahra and Fahaheel where many Bedouin still live as a tribal organisation and where traditions are very strong) are driven by deep cultural forces that affect their behaviour and in turn shape their built environment, especially the dwelling unit. Privacy is one of the most essential and important of these forces in that it comprehensively influences house and city design.

A wide range of solutions developed by various cultures exists to accommodate the personal need for privacy. In the Kuwaiti society the need for privacy is very strong, particularly where people live together over a long period of time. Compact buildings, as in the old town, need to be organised in such a way that they can afford the necessary privacy and yet facilitate contact and

interaction between family groups and between individuals. Sound is a very important consideration in terms of privacy and houses that have few, if any, windows ad thick walls do much to mitigate this problem. The thick walls, lack of openings and inward looking courtyard houses, characteristics that are all essential for creating privacy, also play a major role in reducing the effects of the harsh climate in the hot arid regions. The roof is provided with a high parapet to permit the family to use the roof without sacrificing its privacy (Hakim, 1988; Othman, A. 1988).

6.2.3 The Spiritual Dimension:

The theory chapter, with reference to Rapoport (1977), argues that all cultures constantly undergo a process of evolutionary transition through which their attributes, beliefs, worldview and symbols are learned and transmitted. From this comes a system of rules and habits, which reflect ideas and create the life style behaviour and the built form.

A city is more than the provision of places for human activities. It is a modelling, in physical and organisational means, of the deeply held spiritual values of the society. In its shapes it embraces attitudes towards place, truth, wisdom, equity, respect for the past, the desire for peace, justice, the common good, goodness, aspirations and the quest for the absolute. Each building or segment of a city, according to its respective position in the larger context, cannot escape the fact that it acts as a component in this.

If a city is to communicate these deep messages, not only to outsiders but also to its own citizens as an insurance of the continuity (even as they evolve) of their spiritual values, it requires its buildings to contribute characteristics such as continuity, clarity, readability and visibility. The city must work as a holistic entity to create in the minds of people an image that evokes their spiritual attachments, responsibilities and values.

To many, the spiritual values of the built environment must be rooted in its natural setting (e.g. Norberg-Schulz 1984). The ideals of ecological design state that architecture must not pollute

the natural environment either its atmosphere or its ground, and it should not pollute the visual environment and the tranquillity of nature. There should be no excessive use of materials and those that are used should be sourced in such a way that incurs minimal damage to the environment, whether the source is close to or far from the building. Yet the spiritual motivation makes demands that reach deeper, into the meaning and the root of the built forms. It requires that each building speaks of the attachment between people and the natural world, using its spatial, decorative and formal gestures and arrangements to evoke a sense of proportion between the individual and the world as a whole. It requires that the city transforms the environment in which it is located in a positive way to generate a sense of place.

The issue of architectural proportion goes beyond systems based on mathematical and harmonic rations. Throughout history it has been understood that the proportions expressed by building components and by the styles that architectural history can be condensed into are representations of mysterious forces that go beyond the human intellect. The great European style of Classical architecture, for example, was built around a conception of the universe as a 'perfect' creation of God, in which there an ideal mathematically relationship existed between every living creature and between the parts of each creature, with Man at the centre. The coherent, symbolic language developed in Medieval European architecture was also, according to Norberg-Schulz (1984, page 54), "a systematic approach to architectural form [serving] the purpose of symbolizing the ordered Christian cosmos". Through proportion the architect provides rhythm, formal unity and contrast to the urban environment. Continuity and disruption in composition, elements of reassurance and elements of surprise, elements seen at a distance or experienced at close proximity are all tools at the architects disposal and the deployment of these cannot but reflect deep spiritual tendencies. Even those buildings that aim to be spiritually neutral (which is a trait identifiable with internationalism and modernism) stand as testimony to the spirit of their architect, even if in the buildings determined resistance against deeper human impulses.

6.2.4 Social Interaction Dimension:

The theory chapter explains that Rapoport (1982) argues that people may prefer certain places in the urban areas, or certain building forms, because of what these mean to them. For instance, some people like places with rural character where there is greenery, quietness and healthy air, while places considered to be industrial, smoky, noisy and dirty may be disliked.

It is difficult to judge to what extent these public activities and social interactions have been permanently replaced by private activities in Kuwait City. There has, however, undoubtedly been a wholesale diminution of the possibilities for interaction in public open spaces that the respondents repeatedly related to their environmental satisfaction.

Jan Gehl (1980) gives a thorough explanation as to how the physical environment affects people's activities. In his opinion, outdoor activities in public spaces can be divided into three categories: 'necessary', 'optional' and 'social'. Of these, the 'necessary' activities include those in which the people involved are to a greater or lesser degree required to participate, such as going to school or to work, shopping, waiting for transportation. Because such activities are necessary and take place throughout the year, they are not conditional on the physical context. The 'optional' activities include those more leisurely, less formal pursuits that are only participated in if there is a wish to do so and if time and place make it possible. These activities are more directly controlled by environmental conditions ranging from conditions of weather to the quality of place. This relationship is particularly important in connection with physical planning because many of the most pleasurable outdoor activities are found in this category. Thirdly, the 'social' activities include all activities, active and passive, that depend on the presence of other people in public space. They range from communal activities of various kinds (walking, talking and playing) to simply seeing and hearing other people, to watch and be watched. Jan Gehl also described these activities as 'resultant' because, in nearly all instances, they develop from activities linked to other activity categories.

The survey responses describe a number of activities which the respondents felt to be significant in the daily life within the society and that had an effect on their built environment. Although in many cases they referred to what could be termed as necessary activities, such as going to the shops and going to pray (this is obligatory under Islamic teaching and, to a believer, is not seen to be optional), they did not mention once that the quality such trips added to their lives were a direct consequence of the functions. Instead they spoke warmly about how these activities allowed them to participate in the social life outside their houses, about how going to the souq was an occasion that offered entertainment and contact with other people, or how the practice of walking to the mosque was a community affair. Also, when they spoke of the narrow streets, they did not state that they appreciated them for their antiquity or curved walls to the extent that they remembered these streets as social phenomena that were always filled with life.

6.2.5 The Functional Dimension:

Masaud (1996), as stated in the theory chapter, argues that physical adaptation is the generator of shelter, social adaptation creates habitat, and from cultural adaptation emerges the genius loci.

What impresses the visitors, tourists and others about the traditional Arabic-Muslim cities, in general, is their unity, simplicity and their functionalism. These cities were initially created to perform; there was a reason for every space, every alley and every detail that composed the urban entity. The traditional city evolved as a result of the need for people to create an environment within the unforgiving heat of the desert that would answer to their every life demand.

The souq for instance, is an entire world in itself, created to perform the many functions of commerce, cultural expression, social integration and outlet for artisans of all types within a single, honest, comprehensible and coherent architectural phenomenon. The other great city space of the *maidan* acted as an open-air, public living area where the whole community of the city staged its great ceremonies and rituals.

The narrow cul-de-sacs were born from the paths that people took to their houses while the urban fabric was still in its infancy and not yet compact. These organic routes wandered in response to terrain and to the boundaries where others had set out their properties; they were the locus where people who practised a trade in their houses could install in the *fina* a stall displaying their craft. When the residential quarters had become consolidated, mostly into areas where extended families lived, the routes were enhanced by closing them off with a gate where they met the public street. This entitled the *fireej* to increased levels of privacy and security, and in people's minds they still embody the kinship-neighbourhood which was the core of the social life of the city. These narrow lanes also offered protection from sun and wind. Their human scale presented an element in which people could feel at ease and thus, despite their spatial seclusion of the houses, they did not in fact separate the houses but connected them with a shared, informal neighbourhood room.

At scale of the single dwelling, the courtyard was developed as a functional space. It provided protection at many levels. Objectively, it protected from the environment by transforming the exposed outside space into a place of shade, of plants and animals, of water and cool breezes, especially at the *leewan* open loggias that looked onto it. Subjectively, it provided the protection of privacy from people outside the family and was itself protected by the rooms of the house from the noise of the street outside. It is a space for family relaxation after they return from work, a place where the family spends most of the summer days and is an ideal, safe place for children to play in under the parents watching eyes. It also served to organise and orientate all rooms of the house. As a result of its efficiency in transforming the environment into so many positive phenomena, this enclosed space came to be highly valued and connected with a range of deep emotional forces. It came to symbolise the inner life of the individual and the life style of the society and to many the courtyard represents an image of the paradise of the afterlife promised as a reward for goodness.

All these benefits, of the house, the alleyway and the city, derived from functional needs. In confirmation of this, many of the respondents indicate that function exists as a dimension for the evaluation of the environment at the deepest and most subjective level.

6.2.6 The Dimension of Comfort:

Hall (1986) argues, as stated in the theory chapter, that some aspects of space, for example, may not be visible until one has observed human behaviour. Although man can cope in all but the most difficult and harsh climatic conditions, the human body feels comfortable only in a relatively narrow range of thermal conditions. There are cultural and radical differences in perceptions as to what these conditions may be, as well as variations across age differences. Temperature and humidity are critical factors, to this and it is universally accepted that air movement is needed to avoid feelings of stuffiness and to provide air that is fresh and good to breathe.

Architectural buildings, as a 'third skin' (considering the clothing to be the 'second skin') can provide conditions of the comfort by intercepting and manipulating climatic difficulties, such as the extremes of heat, rain, wind and glare. The building must demonstrate an understanding of the climate and all other environmental characteristics of the particular area in which it is located. When it does so, and develops mechanisms and devices that transform environmental problems into domestic benefits, solutions generate social and cultural value and become part of the indigenous conventions and resources of the people. Expensive mechanical solutions like the use of air-conditioning equipment are limited to those who can afford them, are dependent upon external sources of energy and, when they fail, require specialist attention. For this reason it is doubly important that the designer should seek to use the forces that are embedded within natural phenomena to drive and control the creation of a microclimate which ensures bodily comfort. These generally include issues of location and orientation, the choice of building materials and the way of construction.

6.2.7 The Dimension of Identity and Sense of Belonging:

Rapoport (1970) suggests in the theory chapter that the symbols that people choose to have ground them may, on the other hand, reflect their perceptions of who they are or who they aspire to be or may even reflect a rejection of the past, of traditions or of social norm. There is therefore a close link between symbols and matters of identity.

People express their identity in different ways, both as individuals or groups. Identity expresses the person's sense of self, which answers the questions: Who am I? Who are we? (Barati, 1997). In the case of architecture, several writers present discussions on the concept of identity. Rapoport (1969) investigates some examples in which the house form and location are used to reflect the social status and group membership. Cooper (1974) states that the house is a symbol of its residents.

Generally speaking, people perceive some architectural features or elements as an expression of their identity. They make their houses externally identifiable through the building form and design, materials, colour, texture and use of the natural landscape. Internally they express their identity through furniture, decoration and painting. Sometimes this even leads them to the use of expensive building materials, which need costly and frequent maintenance, and make a disagreeable clash in their immediate environment, especially in an urban situation.

Yet another important aspect of identity is the identity within a group, rather than as an isolated individual in an atomised society. The house must not only stand out as an entity that is unconnected to (or even rude to) its context. It must join with its neighbours, as if to declare "What I am also is a member of this neighbourhood". The fact that the respondents considered their traditional *fireejs* as places of gathering and of society rather than as places where they found themselves to be personally comfortable and their own lives tolerable testifies to the importance of this second aspect of identity. The challenge in such a case is to implement an architecture that, while standing out from the neighbouring buildings, also captures its spirit in a

way that suits the needs of the street and the city as a whole.

In this questionnaire, several elements were identified by the interviewees as features that they would like to put in their new houses. Many of their suggestions covered elements that reflect their culture, social life, attitudes and values such as generosity, families' relations, and privacy. Such items extend their sense of identity and belonging beyond that of the neighbourhood. They identify the respondents as participants in the global Arabic-Muslim community and, in that values such as generosity are common to all cultures, one might propose that expressing an appreciation of such positive values underlines ones belonging to the human species.

6.2.8 The Climatic Dimension:

Barati (1997) suggests that holistic views of cultures and their symbolic values are more clearly observable in regions with environmental and climatic conditions. He attributes this phenomenon to necessities for survival.

One of the highest responses frequently mentioned as an important character of Kuwait City was that of climate. No doubt city planning and dwelling design in any region are influenced to a great extent by the climate and the physical environment of this region. In constructing a shelter, over centuries, man has always taken into consideration these factors. Sometimes he has had to do so consciously, devising ingenious architectural solutions in a systematic way and this approach is typical of today's architects, who have a great desire to display to the world their cleverness and ability to invent marvellous mechanisms that control the internal conditions. More often, greater success has been achieved through by following traditional methods, themselves the result of generations of adaptation and which consider every aspect of the holistic act of construction: building materials, the way of construction, the available indigenous technologies, and the social and cultural context (Reekie, 1972). Adaptation to the climate is recognisable throughout the traditional urban fabric, in the choice of site, the width of streets, building compactness, orientation, building form, the roof inclination, wall thickness etc. (see

fig. 6.01).

Moreover, climate affects forms, size and the location of openings in buildings. In short, it can be said that adaptation with the environment, local climate and nature was one of the most

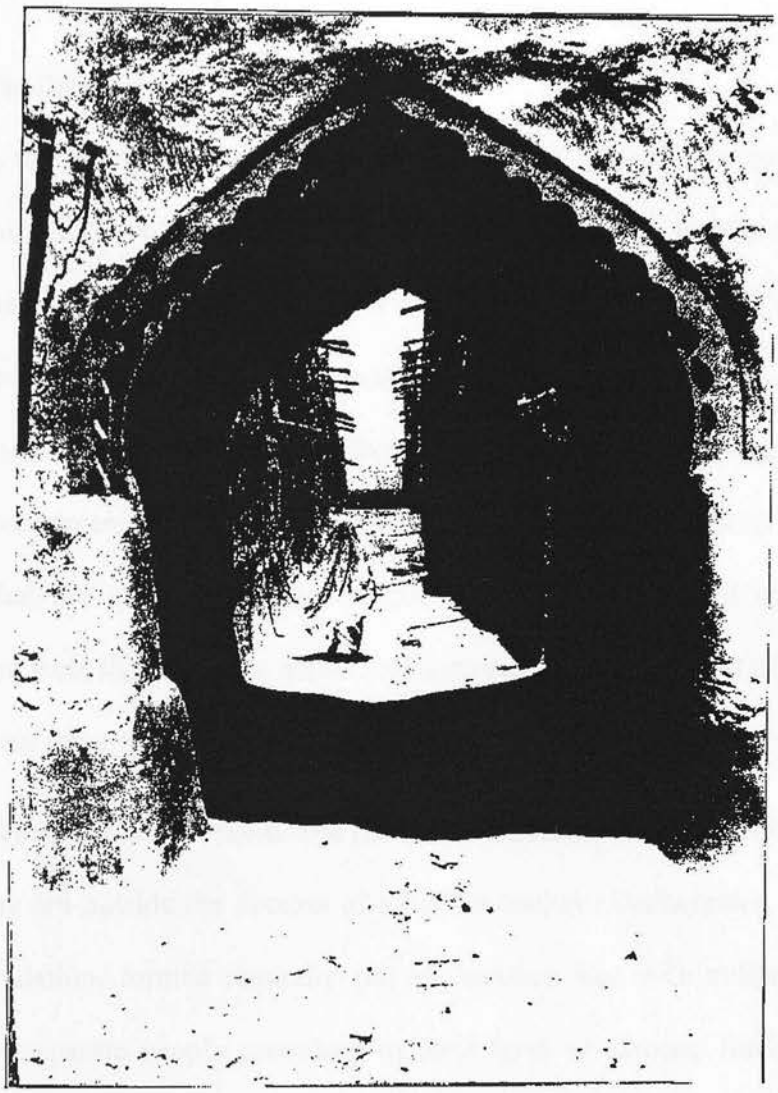


Fig. 6.01: Narrow street providing shade in the summer and warding off the cold winter winds

significant forces in shaping traditional Arabic-Muslim settlements.

Thus, their plans developed with the climate, providing coherent solutions at all levels starting from the dwelling unit and the street up to the city scale (Aronin, 1953). In the same manner,

traditional Kuwait City was strongly influenced by and adapted to its local climate, in which temperatures are high during the day and low at night. The thick walls of its houses absorbed the heat during the day, keeping the rooms cool, and released it during the night, warming up the spaces. Streets were closed to the cold winds in winter. Buildings were very close to each other, developed in compact masses, thereby reducing heat gain in summer and heat loss in winter.

6.2.9 The Aesthetic Dimension:

In their responses, the interviewees frequently expressed their aesthetic preferences in different ways. They indicated different elements such as fountain, garden or architectural elements by using terms such as beautiful, simple, good view or by mentioning elegant buildings or beautiful places. On the understanding that aesthetic values manifest a state of mental contemplation, society demonstrates deep intellectual and cultural attitudes through its treatment of the natural and man-made environment (Maquet, 1986). Referring to the traditional built environment, the author believes that the city's 'aesthetic' is due to the two factors of organic order and compactness. These were the means by which development could meet most of the requirements of life. In the deepest sense they combined both function and social purpose.

The city was also built to a human scale. The person who lives in it or the passer-by in its streets never feel that they are outside the domain of a human society. Furthermore, the city, with its homogeneous population, formed naturally out of common ties with culture, occupation or origin but did not separate people according to their level of income. Such social harmony created a feeling of beauty, and all components within the urban fabric contributed to this highly pleasurable subjective effect. It is this sense of pleasure that has become crystallised in the minds of the respondents as an aesthetic dimension. Thus aesthetics represent to them not so much the deployment of spectacular or graceful architectural forms in space but an urban whole and its meanings.

In an organic manner, the city developed into a complex spatial pattern. This pattern was partly

due to the fact that the construction was not enslaved by grand theories or master plans as are used to generate city form nowadays. Aside from the limitations of their hands and technology, the people had no limit to their imagination. Only by trial and error, with their innate intuition, did the builders of old Kuwait City fulfil their targets of providing a living environment. In short, the organic design was a free arrangement, which accommodated any desired change without its overall harmony being impaired. In other words, the traditional organic city was a flexible and adaptable environment able to cope with any changing needs. It was the outcome of interaction of many different socio-cultural, religious, climatic and economic factors and this is why it was regarded fondly as a beautiful place.

6.2.10 The Symbolic Dimension:

Symbols, as Rapoport (1970) states in the theory chapter, help people to understand the world and form it into a meaningful cultural pattern that is given physical embodiment through built form as well as being expressed through written records, graphic symbols, song, myth and many other structures. This shared basis of understanding enable individuals within the culture to express highly sensitive and to feel confident that the correct meaning is being conveyed.

All elements of traditional architecture were symbols. In the way it was constructed and in the way its components were named it had deep meanings to the old society which gave the continuity to these symbols, and became a part of the inherited customs and traditions of the society. This is most evident in the courtyard, which relates to the love for society, for daily connection with the outside environment and to the joy of looking to the sky and guessing what the weather would be like either in the summer or winter. It was also a symbol of communal daily living, the space set aside for a small family within the larger family of the neighbourhood or the city.

Symbols are most apparent in the external main entrances, which are usually very large and welcoming to visitors. The material used in building houses either in walls, floorings on ceilings

were used as they had been found in nature. Their shapes had not been changed its shape, for much of their value, as appreciated by the homeowner was that they could be used again. This therefore reflected the place of the household within the whole society and the environment. It sent messages about the history, belief structure and culture and the individual's connection to it.

Symbols are also clear in the planning of roads and paths, which reflected the society's daily life and need for shade especially for the elderly on their daily trips to the nearby mosques for prayers. The builders of that time respected this ritual by providing enough shaded areas to walk through from a place to another without the exposure to direct sunlight.

The modern architecture of Kuwait City symbolises a very different value system from that of the past. It employs global measuring units and construction elements and these no longer express attachment to the local values or environment. The influence of the climate, a most important consideration in a desert environment, has lost its importance. There is little attention paid as to which direction the buildings are facing, the size of openings has no connection to the desire to control the direct sunlight and one can see whole buildings with entire façades of glass. The new materials of aluminium, glass, concrete and plastic evoke no connection to the natural colours of the past and convey no profound messages of place and environment. This transformation is a result of the vast transformation of the whole society, the rise of individual incomes and the interconnectivity of nations. It is these factors, instead of local ones, that are symbolised in the modernisation, a trend that has greatly affected all nations and architectural concepts, not only in Kuwait. This transformation is very evident in way people now use the city. Individuals travel from place to place by car. There exists no such thing as the shaded street that invites people to walk and, as a consequence, the society has become noticeably more atomised and insular.

6.3 Conclusion to Part Three: Building the Discourse.

This section aims to make a summary not only of the findings of the survey but of the research

so far as a whole. It condenses the insights generated by the background, the theoretical discussion and the responses to the questionnaire into a discourse that offers a way to look at and evaluate Kuwaiti architecture through a perspective enriched by this study.

Essentially the author wishes to abstract the main points of the work into a series of question that one might ask of any building. These questions would reflect the findings, which have emerged from an in-depth investigation into the many phenomena of architecture in Kuwait City. The intention is not to create a comprehensive checklist but a guide that might stimulate some inquisitive thoughts in the mind of the beholder and enable him or her to assess buildings from a point of view that embeds a wide-reaching analysis into Kuwait.

- Does the building evoke the character of Kuwait as a desert country? Does it transform the characteristics of the hot and dry climate into positive forces in its architecture?
- Does the building celebrate the profound connection that Kuwaitis have for the sea?
- Does the building celebrate local crafts and technologies?
- Does the building have human scale?
- Does the building satisfy a range of deeply held motivations and needs?
- Does the building express adaptation such that the process of physical, social and cultural adaptation is symbolised within its elements?
- Does the building evoke a subjective sense of place as a connection between the individual and the universe?
- Does the building respect Arabic-Muslim traditions of rights of way, building height, privacy and the reuse of materials?
- Does the building respond to people's needs for safety, belonging and identity?
- Does the building encourage social behaviour such as visiting, walking or meeting other

people in the city?

- Does the building express social cohesion by fitting in well with its neighbours?

Many of these questions, it can be noticed, are very general in nature and can be satisfied by a number of approaches. The call for cohesion within the neighbourhood, for example, need not insist upon a stylistic imitation of nearby buildings but provides a consideration that must be borne in mind. In other words, it invites the person to ask whether the building took form on a blank sheet of paper or with the neighbouring constructions in mind. Similarly, a sense of responsiveness to the environment need not require *badgeers* or white walls; it is up to the architect to think of ideas that would make a positive contribution in this aspect, so long as the climate is taken into consideration.

It is not the suggestion of the author that a good building is one that must 'pass' all these questions. They simply exist as a guide to inspire analytical thought in the observer and some may not be applicable to certain types of buildings.

The following part, Part Four, presents an application of this discourse by taking these ideas on board in the investigation of two significant recent constructions in Kuwait City.

PART FOUR

CASE STUDIES

PART FOUR

CHAPTER SEVEN

CASE STUDIES

Chapter 7: Case Studies

7.1 Introduction:

This thesis has found, upon examining its old architecture, that space was an important element in the life of the old Kuwaiti Society. There was a space for the family, a space for the guests, a space to play, a space to accommodate the animals and a space to hold celebrations. This was pragmatic space, assigned for a certain activity and a certain purpose. The importance of the climate in planning the space has also been emphasised. The house has to be suitable to the environment, the temperature and the dusty winds. This is perceptual space. The connection between the buildings and the desert environment with no colour but the yellow of the sand, the blue of the sea and the vast transparent sky created a vast living place with no boundaries. This cultured ecology was created from a society of incomers with their handicrafts, through which they were able to build ships and houses, and were skilled in cloth making and leather manufacturing, even though the resources were scarce and were mostly imported. The groupings of men and women then gave so the old Kuwaiti society its habits and social patterns.

The concept of openness or the connection with the outside environment is evident in the old Kuwaiti house, in its courtyards and roofs and spaces. This is an important concept for a desert society, for spaciousness and the purity of the skies are factors in creativity and imagination. In this empty land that lacks natural elevations from mountains, valleys and agriculture etc. this influence is reflected on the effect of the sky and which gave the quality of light and colour.

One of the noticeable elements in the old Kuwaiti society and especially in old buildings is the image of the simplicity and unity of natural space, and also the perimeter of wall that is the primary element of the dwelling corners and cornices. External sitting areas under arches or at the end of paths or roads are other elements, and also the external small openings and windows enforced with iron bars needs understanding and studying. Other elements like the *leewan* and the large external doors, and the shaded naturally narrow roads are all elements with a purpose and have an important environmental and social meaning.

This thesis has traced the value of these features and their communication of deep meanings and found that that these meanings still exist in people's minds. It now looks at two case studies to see how the discourse allows the researcher to see how decision-makers and the new generation of architects have taken on these concepts and made them alive in their work. The case study introduces these questions and presents them in the two projects chosen to show how the discourse can identify the projects' connection with the their social and cultural context.

Architectural design entails the conscious enactment of comprehensive decision-making endeavours, which necessitates, on the part of the architect, a never-ending sequence of value judgements. In all cases, the formulation of judgements requires the explicit use of criteria. In this context, a criterion may be understood as a standard by which a thing is assessed, whether explicitly expressed or not. The validity of the criteria depends upon how well they conform to corresponding human values, which, in turn underpin judgements. A list of value-based criteria for evaluating places and assessing the design of new buildings is already built. The author describes two projects, the Al-Bannai House and Souq Al-Sharq and the concepts and the architectural elements and criteria employed by their architects. Then by temporarily suspending these criteria, the author uncovers a deeper level of meaning, which could be understood in its broadest sense as the building's environmental social values, validated this time by the enlightened awareness of collective cultural values.

Fig. 7.01: Al-Bannai House

Fig. 7.02: Souq Al-Sharq

7.2 Al-Bannai House:

All the architects interested in Arab architecture today, are necessarily confronted with its two main aspects. One is the marvellous heritage of Arab architecture and cities which are inspired by the principles of Islam, and the other is the scale of the problem of the Arab city today, especially concerning the metropolitan characteristics, the challenge of things to be realised.

The author believes that these two points are related. Protection of this great architectural heritage cannot be undertaken simply by the preservation of the existing historical environment and the monuments, but must include building for today's needs and those of the future. On the other hand the continuity of the value systems and the philosophy of Islamic dwelling architecture in the realisation of today and the future, both oblige us to see the housing as living organism with it's emerging problems. Looking for the answer to the new problems while respecting the continuity of values necessitates the collaboration of all those concerned with the future of society. Housing in the city constitutes large areas. It should be seen not only as the response to quantitative and technical problems, but also from the cultural and social point of view, the climatic conditions, the construction materials, techniques, orientation, and location. In other words, it should be recognised to be the creation of entire urban districts. The preservation of Kuwaiti traditions is a collective responsibility of society, including all participants and decision-makers, not only those directly involve in design.

In order to clarify this statement we should ask what design means in the context of Kuwaiti architecture today, what are its specific dimensions and what are the conceptual approaches.

This sub-section looks at Al-Bannai house, but principally as a point of departure for further debate.

The house was the design work of the author and his firm following the suggestions of the client (Mr Al-Bannai, hence the name of the house). The design concept of the house was based upon providing a functional dwelling for the client's needs, to be appropriate to the environment and

climate considerations, and to establish a cultural identity through the continuity of traditional forms with respect to aesthetic values and modern scientific requirements.

The design offers a high degree of privacy within a constricted site. The open courtyards are the focus of all activities; all the living areas open on to it. The courtyards, with their accompanying vegetation and use of water and air circulation, provide a naturally controlled microclimate. The design incorporates many traditional elements that enhance the architectural space, with the use of wind catchers, vaults, wooden ceilings, mushrabiyas and stained glass to diffuse and filter light. Marble floors with geometric patterns appeal to the eye as well as providing a cool surface. The construction also makes use of traditional materials and building methods so as to provide a more effective means of heat insulation and acoustic control. The use of natural energy provides a long term saving in running costs and extends the buildings life span and weathering condition.

Climatic Considerations:

The design takes full consideration of environmental and climatic conditions. The well-tried methods of controlling heat by natural means, as used in the traditional Kuwait house, are applied to enhance comfort zones in the exterior space, and to economise on the running costs of mechanical air conditioning by eliminating its use in good weather.

Orientation:

To minimise the impact of direct solar radiation on the south east and south west elevations, rooms and living spaces attached with the neighbour's wall, which is five metres high and their respective openings were properly oriented towards the courtyard.

The opening spaces of the sunken garden courtyards are shaded by high wall and plants can be planted in the sunken courtyards for additional outdoor living space with maximum shade and ventilation.

Ventilation:

Natural air movement can be created by a 'stack effect', where warmer and lighter air rises to be replaced by cooler and denser air. This effect has been achieved in the design by creating the narrow shaded sunken courtyard containing the water fountain by the centre of the sunken courtyards. Continual source of cooled air will flow from the water fountain and the sunken courtyard resulting in a pleasant draft of air within the basement and all floors as well.

Air currents have been encouraged in the design through the use of cross ventilation within the open spaces of the exterior and the closed spaces of the interior. The main reception and living room have a 'snorkelling' wind catch (*badgeer*) to capture the prevailing south easterly breeze and north breeze and cool it down into the reception and living area which has low ceiling of vaults to improve air circulation by allowing the lighter hot air to rise (see fig. 7.03).

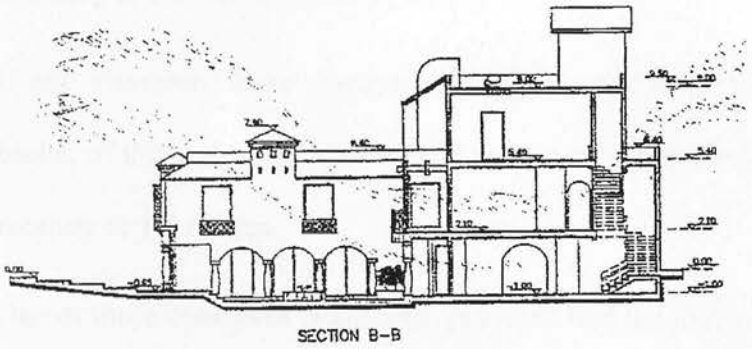
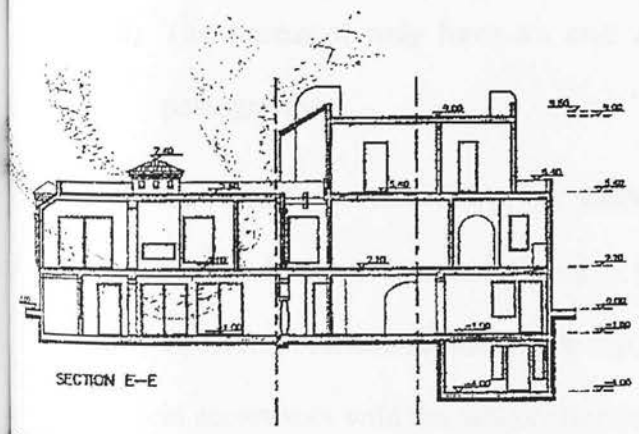


Fig. 7.03: Wind pattern in summer



7.04 Circulation by stack effect

Kuwait Statutory Building Regulations:

Building regulations for Arab courtyard buildings in Kuwait Chapter 8, Article 96 allow private and commercial residential buildings in the Arabic Style in areas allocated for this purpose, provided they meet the following conditions.

a) The total built up area is equal to 100% of plot area, provided the ground floor average does not exceed 50% of the plot area.

b) A ground floor and first floor may built with maximum height of each floor is 3 meters.

c) The heights of buildings and floors are measured in the following way:

The maximum height of the building is the difference in level between its roof and kerbstone level (parapets, trusses, pergolas and mechanical equipment are included in the calculation of the maximum height).

The minimum clear height of a floor is the difference in level between the ceiling structure and the finished floor.

d) A passageway may be built in 2.50 metres, its area. If it exceeds 2.5metres, then the additional area will be considered in the calculation of the built up area.

e) Building is allowed on properly line.

f) If any elevations have windows overlooking the neighbouring site then the minimum set backs, of these elevations must be 3 metres from the site line. Note this have been changed recently to 1.5 metres.

g) One or more courtyard is allowed, provided that the minimum dimension of a courtyard is 4 metres. Passageways do not form parts of the courtyards.

h) The basement may have an area equal to that allowed for the ground floor plus its passageways.

i) The staircase at roof level is allowed to exceed the maximum height of the building, provided that it does not exceed it by more than 3 metres, inclusive of its roof slab. All structural beams and mechanical equipment may exceed the maximum height of a building in accordance with the design requirements.

Design Concept of Al-Bannai House:

The architectural design used the open courtyard as the centre of the activities, and as an aesthetic point that attracts the vision, for an open courtyard and a water fountain and greenery have a natural beauty, and a relaxing effect on individuals. It allows man and nature to come

together in harmony. High quality paving arranged in simple but attractive patterns, will contrast with the foliage of a few choice plants, been selected for colour, form and fragrance. Lighting is designed not only to provide a general illumination, but also to highlight features of the courtyard and for special effects.

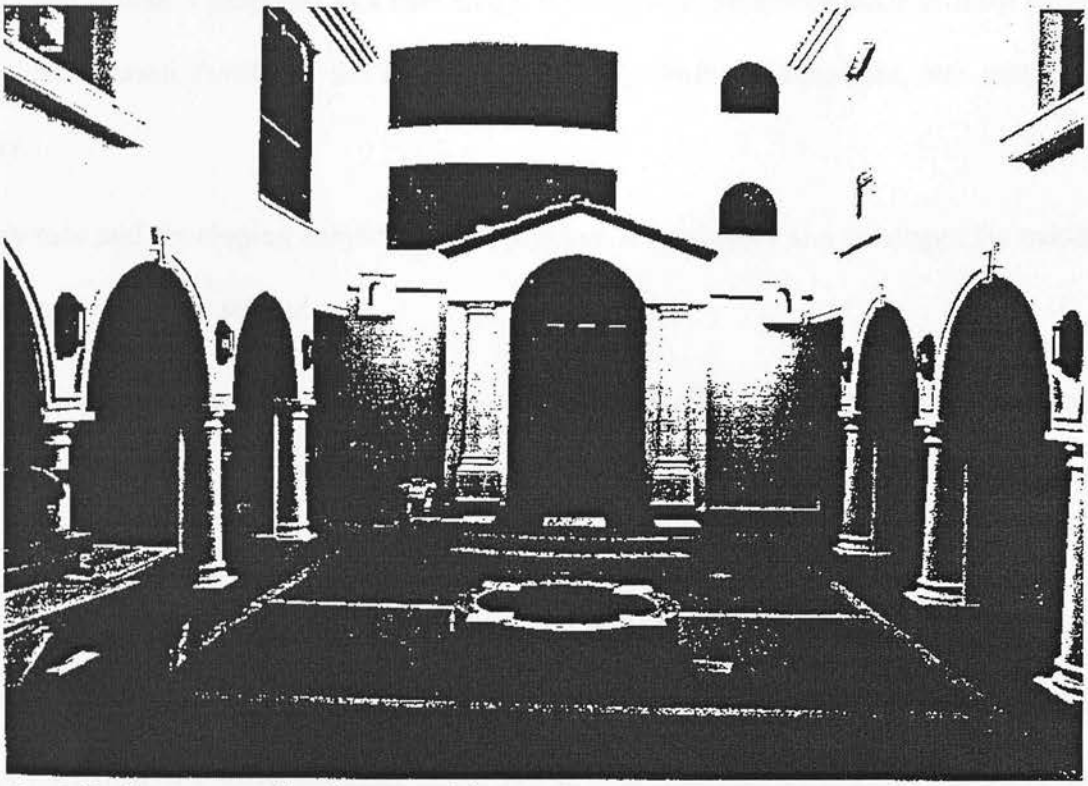


Fig. 7.05: Open courtyard as the centre of the activities.

Passageways and movement between the interior empty spaces either in the basement or in the ground floor or second take place on the neighbour's side, which is considered of no importance and needs no large windows for natural lighting. Here instead natural light is collected from the top ceiling into the passageway and reflected downwards through 30cm diameter ducts in order to control it and direct it to the appropriate spot. The light ducts are fixed to the roof and covered by a glass dome with special specification to withstand the wind and humidity. This is considered one of the finest modern ways to use natural lighting in enclosed spaces. The ducts could reach up to nine metres in length.

All the openings and the windows of the reception areas, of the private bedrooms and of the

interior spaces open to the courtyard, providing a pleasant view to the eye, and also ensuring privacy to family members. Utility rooms are placed in the basement for easy access and better use of main floor spaces.

House Description:

Al-Bannai House is proposed as a case study. It is a private residence made to fulfil the needs of a typical Kuwaiti family of the twenty-first century, with six members, two maids and one driver.

In any new and developing subject the first problem is to identify and catalogue the material that forms the core of the subject.

The appropriate house is the house that establishes social, economic, cultural, religious and environmental needs without forgetting that the aesthetic aim seeks to account for visual and stylistic differences.

However, the case of Al-Bannai House compromises a network of three floors. The first floor is the basement floor; it contains a sunken courtyard 1m below the first floor level, and another lower basement 4m below the floor level. The ground floor is 3.10m above the basement level. The first floor is 3.30m above the ground floor and the second floor is an open terrace used to accommodate the air conditioning units of the upper floors. The air conditioning units of the basement are placed in the basement, where the air is conditioned through the walls, by using the drop in the ceiling of the basement with an area of 3.10m².

The residence has two front entrances. The main entrance is located in the middle of the fence used by family members and

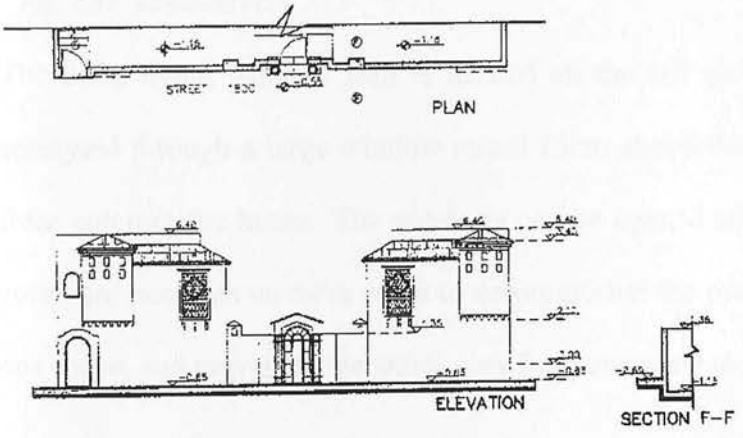


Fig. 7.06: Boundary wall

guests. It brings back to memory the old Kuwaiti house with its large entrance that leads to the inside of the house, and creates the feeling of transition of the large space to a smaller one used for the individual's living, where one finds the comfort of being among family members.

A water fountain with an architectural form that suits that of the house replaces the traditional water reservoir (*birka*). This evolution took place to make use of the form and to lend a pleasant coolness to the atmosphere and also to add an aesthetic aspect to the courtyard. The residents sit around here in the afternoon, when the temperature drops to a comfortable degree, take their breakfast in the morning, dine in the evening or entertain friends at night. This piece of work stresses the importance of the courtyard (*hoash*) to the modern Kuwaiti society and unites the past with the present.

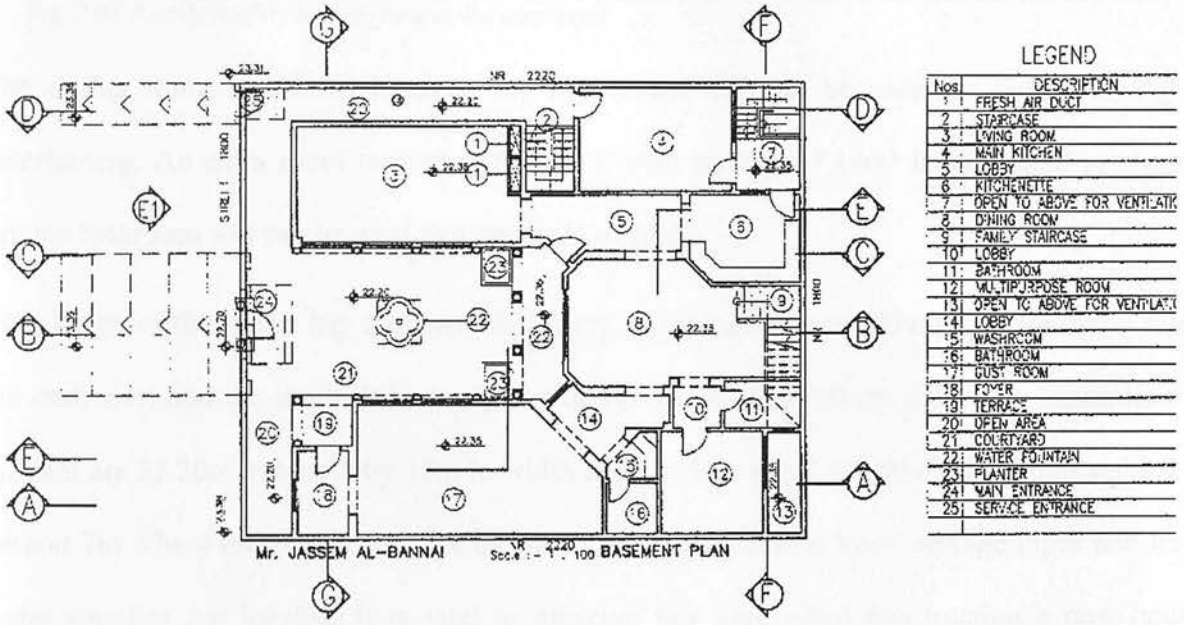


Fig. 7.07: Basement plan

The daily living wing or *sala* is located on the left and is 40.50m². Both *salas* open to the courtyard through a large window raised 15cm above the basement level to prevent rain water from entering the house. The windows can be opened when the family is entertaining and the courtyard becomes an extra room to accommodate the guests. The whole floor could be used as one space, and movement becomes easy from one wing to the other.

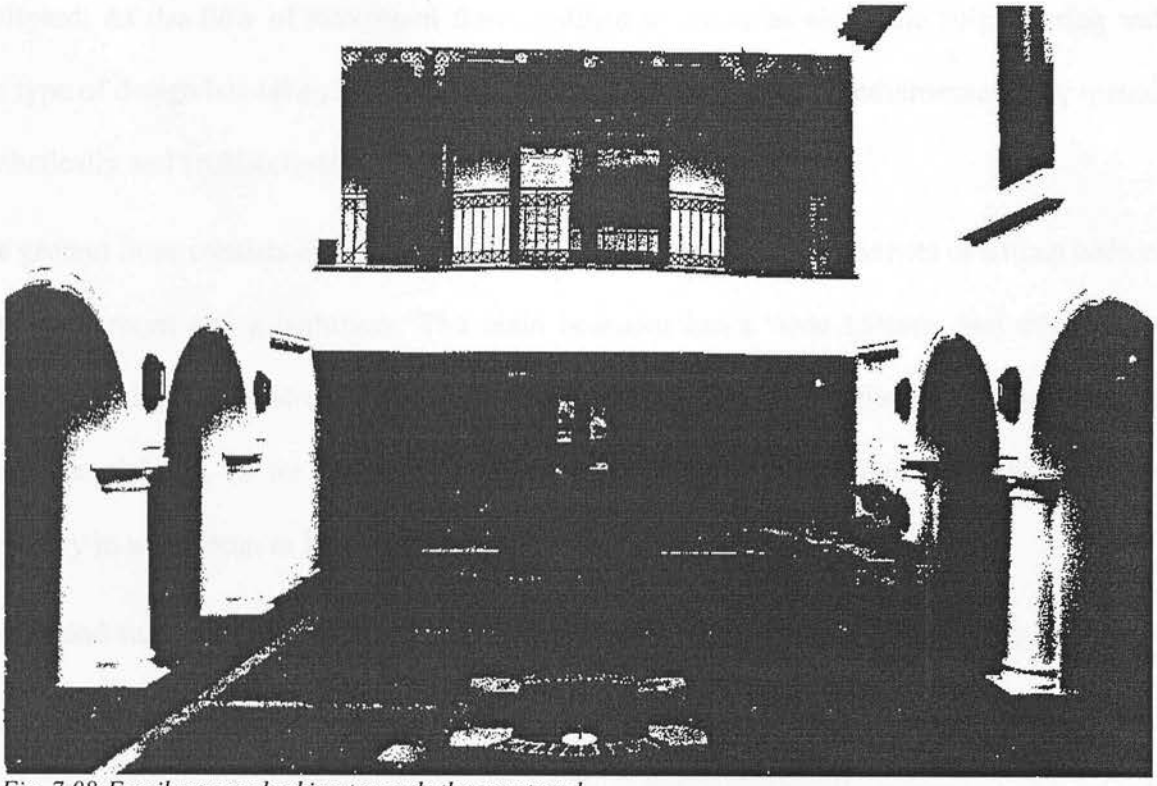


Fig. 7.08:Family rooms looking towards the courtyard

The dining room is located between the two wings and can be used for family dining or entertaining. An extra room located in this floor with an area of 16m² is connected to a semi-private bathroom and can be used as a bedroom or study.

The design of the house has a rectangular shape, surrounded by neighbours on the three sides: the east, west and the south. It has only one elevation, on the northern side. The dimensions of the plot are 22.20m in length by 18m in width and a total area of 399.60m². The front setback is around 7m where the state's services of electricity and telephone lines, sewage pipes and fresh water supplies are located. It is vital to preserve this area when constructing a new house. Construction laws in Kuwait does not allow the state to provide the land for citizens without first providing the general services, including road paving. There are also extra services areas needed for fire fighting lines, traffic lights, and general lighting. These should be provided for too.

The ground floor has a U shape that surrounds the courtyard. In order to concentrate the view and make full social use of the courtyard, and to use it to provide a cooling atmosphere to the yard through the fountain and plants, all openings and balconies are directed towards the

courtyard. As the flow of movement flow confined to the areas along the neighbouring walls, this type of design has taken full advantage of the courtyard socially, environmentally, spatially, aesthetically and architecturally.

The ground floor consists of three main elements. The parent's suite consists of a main bedroom, a dressing room and a bathroom. The main bedroom has a wide balcony that overlooks the courtyard and the front street at the same time. It has a western location where the sunshine is almost continuous, so no windows open on this side or on the street, offering the privacy necessary in a bedroom in Kuwaiti society.

The second suite is located on the eastern elevation and occupies the boys and girl's bedrooms.

The third suite is the daily living area for the whole family. This has a balcony that overlooks the courtyard and the front elevation at the same time, which provides a continuous and barrier-free view.

The ground floor also has a multi purpose room of around 16m² in area, and a preparation kitchen of 16m² in area.

Natural air ventilation is directed toward the closed interior of the house through the front and

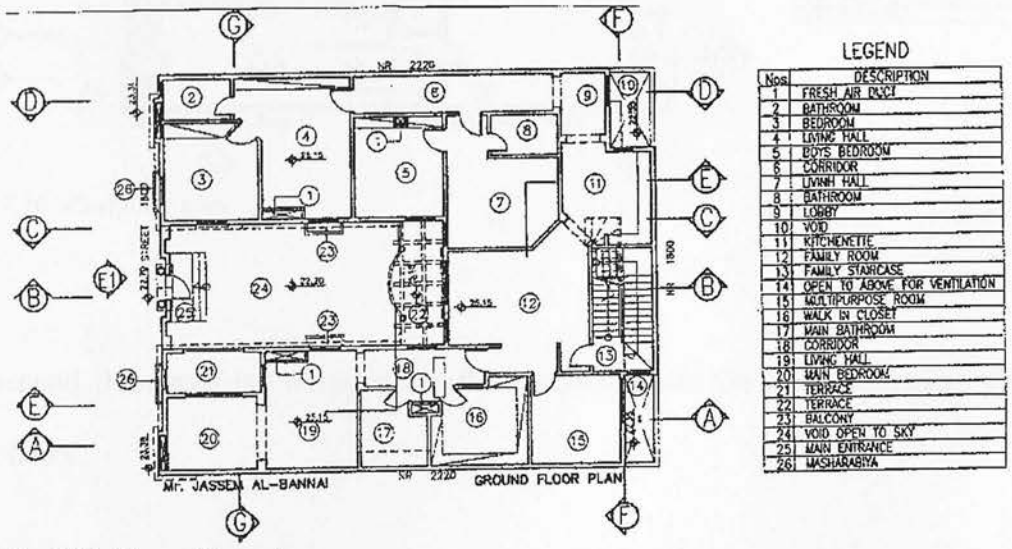


Fig. 7.09: Ground floor plan

back voids located at the roof floor. One also observes that the family staircase is the only one in the ground floor that connects the levels of the house vertically.

The first floor consists of a multi purpose play hall of 60m² in area, and has a main opening that overlooks the courtyard. The family staircase ends at this floor too. The other part of the first floor accommodates the servant's room of an area of 8.25m² and a private both of an area of 4.75m², plus a laundry room of 10.23m² in area, and an ironing room of 9m² in area.

The rest of the open space of the ground floor roof is used as a safe play ground for children to play at night or even sleep during the night, one of the old traditions that the designer tried to preserve in our modern time. The roofs of the wind catchers, badgeers are also located on this floor, designed to ventilate the interior of the house.

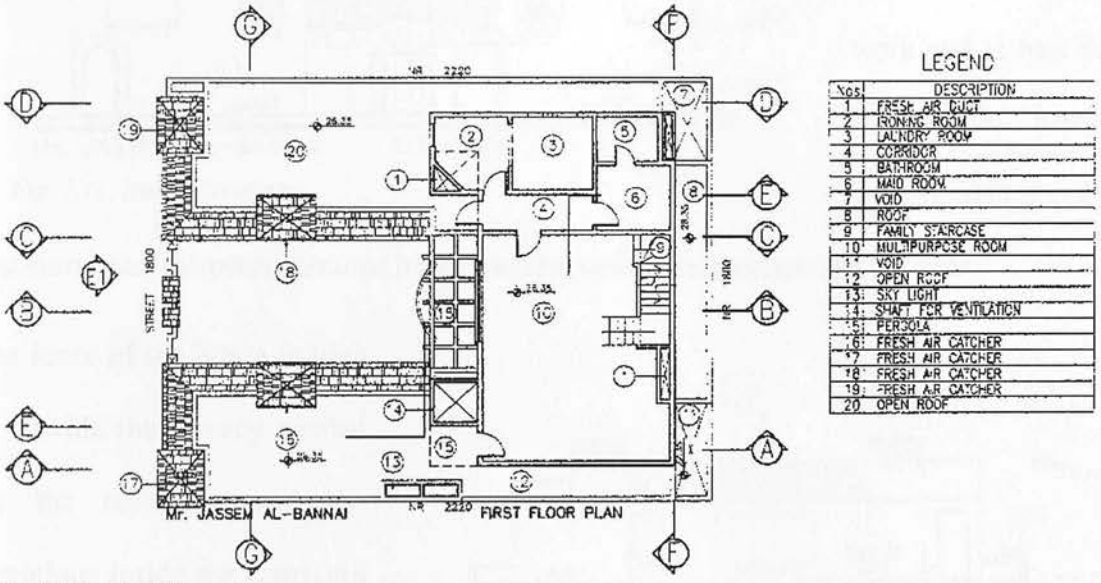


Fig. 7.10: First floor plan

The second floor roof is the last and left to accommodate the air conditioning units, and the water tanks.

The Exterior:

The exterior appearance of a building is the result of many factors, some of which are practical; others are cultural or geographical. How the spaces within are arranged, the materials and system of construction, the way the architect has designed the building to take account of the weather or express the status or function of the building, largely determine what we see as we approach. In the Middle East all we might see of a dwelling would be a blank wall facing the street and a small entrance, for all the rooms face onto an interior courtyard.

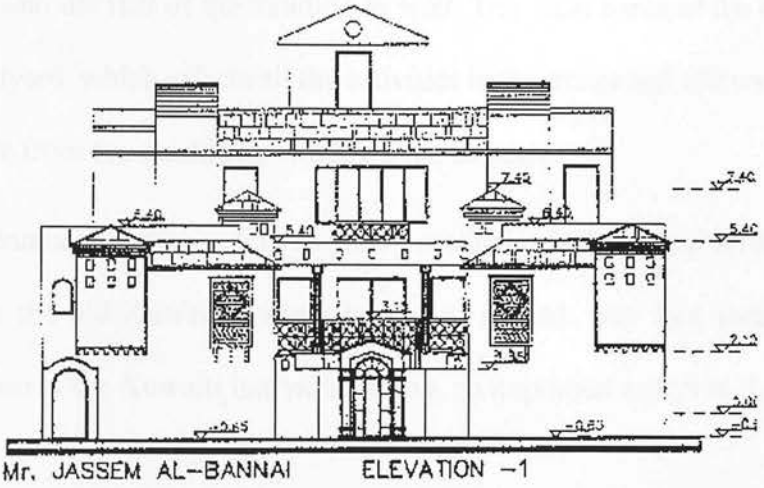


Fig. 7.11: North elevation

Al-Bannai House takes on the general form of the local architecture. At that the front elevation of the house is free of ornamental work and is best described as simple. Attention is concentrated about its only two entrances, the main entrance in the middle, and a side entrance for services.

The fence of the house is high to provide the privacy needed for the residents, and the elevations inside the courtyard have large windows. Balconies open onto it to take advantage of the air and shade, and to provide a pleasant sitting area in the evenings. The balconies also provide place to watch children playing in the courtyard.

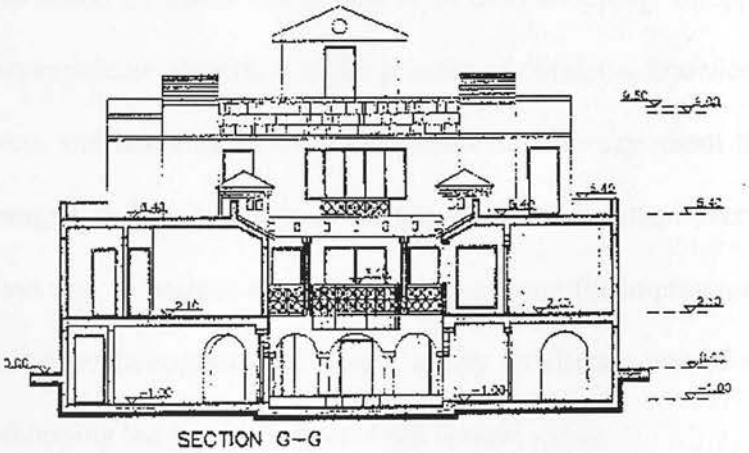


Fig. 7.12: Section looking south

Conclusion:

This sub-section asks how ideas of space have been explored by Al-Bannai House in terms of the relationships of the building to its surroundings. It also correlates the building in light of the culture and customs of residents, the influence of religion, culture, the environment and the economical elements on forming spaces.

The house is set between three neighbours and is characterised by the different levels of its roofs that cover the smaller spaces. The wind catchers (*badgeers*) are also prominent features of the roof and the rear of the building as well. The main focus of the building, however, is the sunken courtyard, which affects all the activities in the house and allows spaces around it to face inward, while from the outside no windows can be seen.

Al-Bannai House manages to gather aesthetic elements and artistic and social symbols inherited from the old Kuwaiti society in a very modern way that suits and serves the needs and the culture of the Kuwaiti individual today, an important aspect in the modern house in our time.

7.3 Souq Al-Sharq:

The word souq in Arabic is used to name the place where people do their shopping. Shopping here is not restricted to obtaining materialistic objects; it is the process of obtaining knowledge, through looking at displayed objects and listening to what merchants have to say about their goods, the way they have been arranged, their ingredients or quality, or their advantage over the competitors' wares. Souqs nowadays and in eastern societies present a beautiful impression to individuals. They are the places that provide comfort and leisure to city dwellers, some of who are eager to go to the souq not for shopping but just to find out what is new.

Souq Al-Sharq is a unique shopping mall. It is an extension of the old capital and has a location on the sea front. It is a commercial place offering entertainment, sports and cultural experiences.

This souq extends for three kilometres on the cornish (seafront) road, one of the vital roads in Kuwait. This horizontal extension of the souq and its unique location offers a modern extension to the old souq and creates an interaction of man's cities with prominent sites, an interaction that creates a strong sense of place.

To enter Souq Al-Sharq one has to drive upon a small bridge. This gives the visitors the feeling of transition to another world, with different experiences of beauty, spaciousness and surprise to be had. Its effect is dynamic and gives a new concept; it creates for the visitor recognisable points of arrival or departure, travelling from a wide spatial experience to a smaller one. The souq has a subsidiary side entrance and exit but the design does not devote a lot of interest to these.

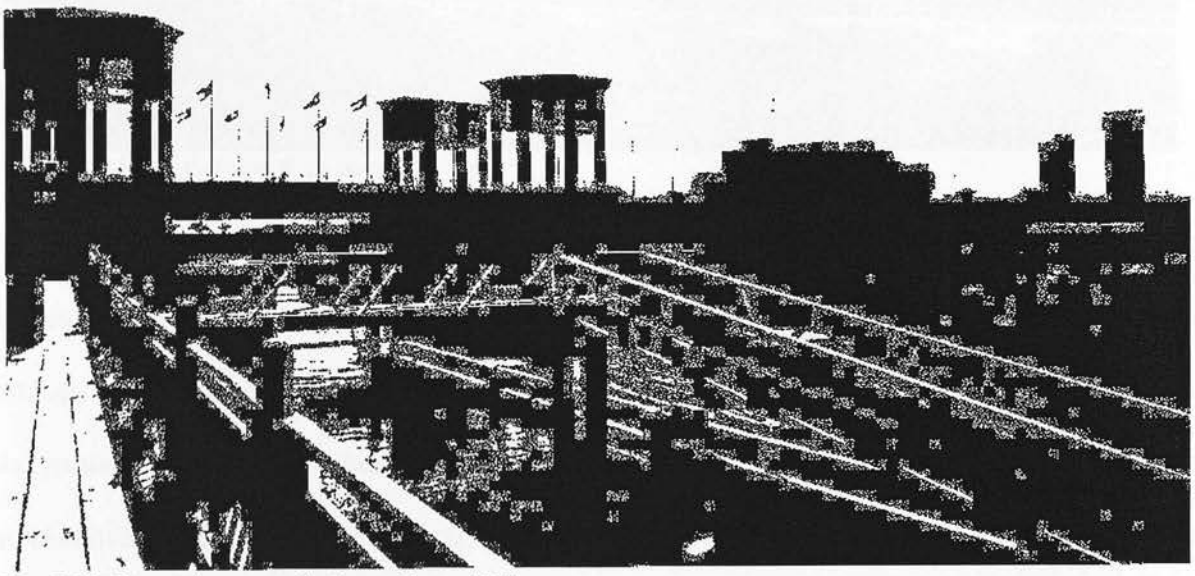


Fig. 7.13: View of entrance bridge to Souq Al-Sharq

The location of the souq by the seafront also connects the Kuwaiti individual with the traditional past of sea travelling, and arts linked to ship building, the making of *dhows*, of fishing gear and nets and other commercial activities that took place on the seafront.

The souq occupies two seafronts. One faces the north and a manmade one faces the south. The northern elevation is not used for commercial activities because of strong wind and high waves, especially in the winter. No shops are found in this area and it is a large parking area that stretches for more than two kilometres (see fig. 7.14).

Fig. 7.13: Souq Al-Sharq from the north

The south, manmade seafront is used as an marina for small boats, yachts and sailing boats for amateurs. The site is a beautiful one for which the architect has designed overlooking balconies, terraces and staircases on several levels with shops on the ground level. In front stand small playgrounds and water fountains and other amusements, all of which create a harmonious social environment. The designer has managed to direct the eye towards the positive forms of the city, orienting the individual by incorporating views to the point of the Mosque or the line of the souq.

For every space to exist it must be enclosed by boundaries, be they the mountains, the sea or the desert. The boundaries of spaces could be natural or could man-made. What matters to the individual in the city context is that they should be safe and identifiable in order to direct him or her about the routes of their daily chores without obstacles or extraneous effort. This is

accomplished in Souq Al-Sharq.

The location of Souq Al-Sharq by the seafront returns to Kuwaiti society the spirit of the past and the memories that once encouraged individuals to frequent the place. In addition to the parking areas its outdoor spaces offer walking paths for, fishing piers for amateur anglers to carry out their hobbies and lots of benches just to sit on and watch the sea. In addition to all of this is a cinema that is connected to the mall.

For the south elevation, the cornish front that looks upon the old city, the designer has created a manmade lake that stretches parallel to the souq and serves as a marina for yachts and small sailing boats. The beautiful vista of the marina is used by the architect as a recreational area, with lots of shaded seating areas and playgrounds, dancing water fountains and cafés. Many restaurants are located on the upper level of the souq, overlooking the old city. This therefore not only provides a leisurely atmosphere, a social hub and a place of excitement, it connects people to their city, their wider environment and to the past.

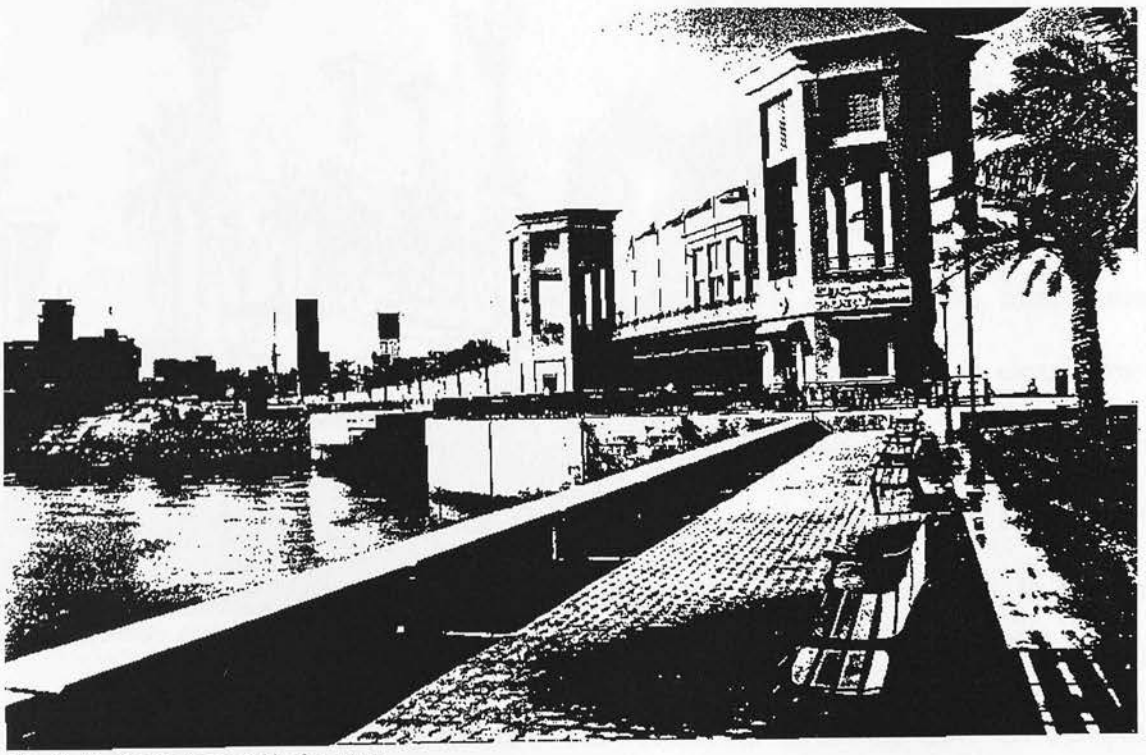


Fig. 7.15: South (cornish) elevation

These restaurants, resting areas and playgrounds provide a highly socially fulfilling use of the souq. The do not recognise it as being a place for shopping only, but as one where people of different ages, races and backgrounds can feel free to gather, socialise, exchange language and experiences and feelings, whether they are Kuwaiti citizens or residents or tourists.

The eastern elevation of the souq is used for outdoor and indoor sport activities, including halls for squash, tennis, volleyball and basketball. The western elevation of the souq is a large area used as a port for old wooden sailing boats of historic importance to the Kuwaiti society. These ships were used in the old days for trading and transporting goods, and for pearl fishing, a major resource of income to the citizens of Kuwait. At this port, fresh seafood of all kinds can be obtained and bought for reasonable prices. It is sold in an old fashioned way, by haggling, until a price agreeable to buyer and seller is reached.

Fig. 7.16: Delivery route only for modern seafood market

There is another modern seafood market connected with the port. It is a fully equipped souq building that follows the highest technical specifications, from matters of ventilation to cleanliness and the use of large coolers to store the fish. The traffic flow to his market is kept apart from that of the large parking area, having its own circulation system to avoid traffic jams especially from the transporting trucks that delivers the seafood to the other districts.

Once the qualitative aspects of space are made apparent, their quantitative uses follow directly, thus the positive and vital concept of space generates all architectural creations.

The hierarchy of Souq Al-Sharq has been set on several levels. The first is the commercial construction to which a suitable space was provided with suitable heights and suitable number of shops for such a strategic location.

Fig. 7.17: Seafood market at west elevation

The second level is the old traditional souq, the fish market and the port of old ships. The third level is where the indoor and outdoor sports activities and exercises are held. The fourth level includes the recreational areas for children where safe space is provided for children under the supervision of adults. The fifth level is the aesthetic concept, which is evident on all of the elevations of the souq.

Souq Al-Sharq is distinguished by its unique location surrounded by water from all sides. It is a centre of attraction and a point where everything gathers and meets. Its architectural articulation is as a continuation to the old architecture. It follows a horizontal extension, remaining close to the earth and the coherence of its construction as an architectural element is a return to traditional ways of architecture that creates a sense of safety and strength and resists the force of the wind and the summer high temperatures.

Looking at the souq from the cornish road lends a huge depth to the old city, and enables the visitors to feel what the old sailors felt, when the lights of the city glittering over the water welcomed them back home after their long journeys at sea. The same feeling is intensified by

requiring the visitor to enter the souq from the cornish road over a bridge.

The traditional nature of the souq's architecture is distinguished not only by its horizontal extension but also by the materials used in the construction. It is clad entirely in yellow, sand-coloured bricks, natural stone and sports prominent architectural elements such as the *mushrabiya* oriel windows and very large *badgeers*.

Fig. 7.18: Souq Al-Sharq and its entrance bridge

As for the flow of traffic inside the souq one could notice many empty spaces that symbolise the idea of the old *hoash* (courtyard) which welcomes a large numbers of visitors to the souq. These internal spaces look onto many escalators, stairways and elevators for the elderly and the handicapped. Unfortunately, from the same spaces, the visitor can notice how much of the space has taken over with fast food restaurants, international 'designer name' shops and areas for car exhibitions and electronic wares and other products used only by the modern individual.

The sixth level that needs to by studied is how the building takes advantage of the climate conditions. In plan, the orientation is inspired by the north and south winds, with the fish souq and the port being located to the west to draw away the unpleasant smell that comes from the fishing boats. The southern elevation is sheltered from strong winds and therefore is used for the marina for yachts, sailing boats and for the children playgrounds. The northern elevation, which is considered climatically active, is used for the parking area, fishing and walking. At the eastern

elevation, the calmest of all with quiet winds and direct sun only in the morning, is used for indoor and outdoor sport activities and for public parks.

The seventh level the traditional elements. Many elements in the design of Souq Al-Sharq are inherited from the traditional life of the Kuwaiti society and symbolised in the open spaces or what is called Al-Fireej (literally 'the neighbourhood'), a place for children to play located at the southern and the eastern elevation. Also the love for sailing is communicated by the old port and the new marina. The delight that was once taken in shopping at the old souqs is felt by shoppers at the fish souq, where they can find many handcrafted objects, old goods and food displayed in a healthy modern way, and also many traditional cafés. The *badgeers* that form such a prominent feature of the roofscape and that identify the building as an architectural unit are used to cover the air conditioning units and water tanks. They have been applied without any change to the shape or dimensions of traditional *badgeers*, although their function is now quite different.

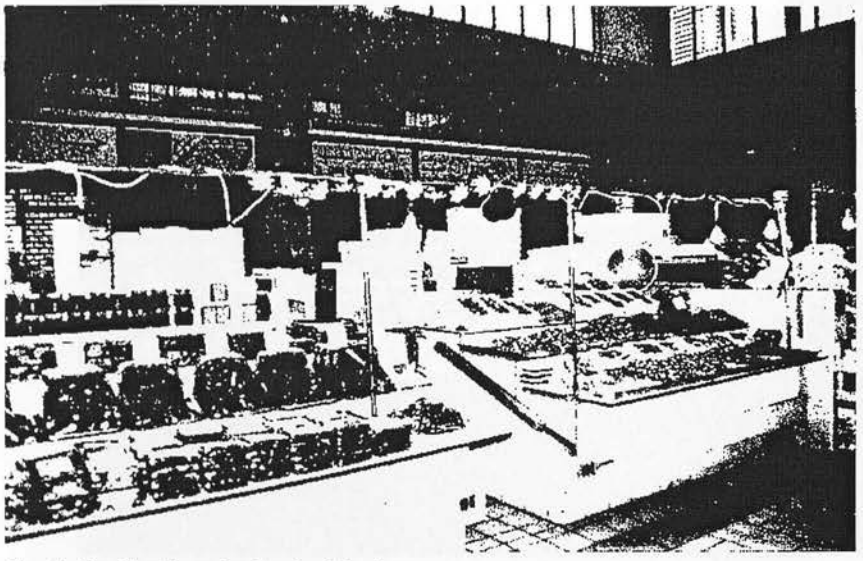


Fig. 7.19: Food on display inside the souq

The eighth level is the use of single colour, primarily as area painting or for geometric patterns. It is well known that colours have dimensional qualities, and the use of yellow sand bricks connects the colour of the souq to that of the desert. The surrounding blue of the sea was used by the designer to offset and frame the souq, to show the whole project as a something extracted from the vast desert.

The mushrabiya window screens used in traditional housing had a special social role in the past.

The old houses were distinguished by them, they shaded the interior rooms without blocking off the cool air currents; they admitted light without compromising privacy; and the ladies of the house used to look out through them from the privacy of their homes. These are used to cover the elevation of Souq Al-Sharq.

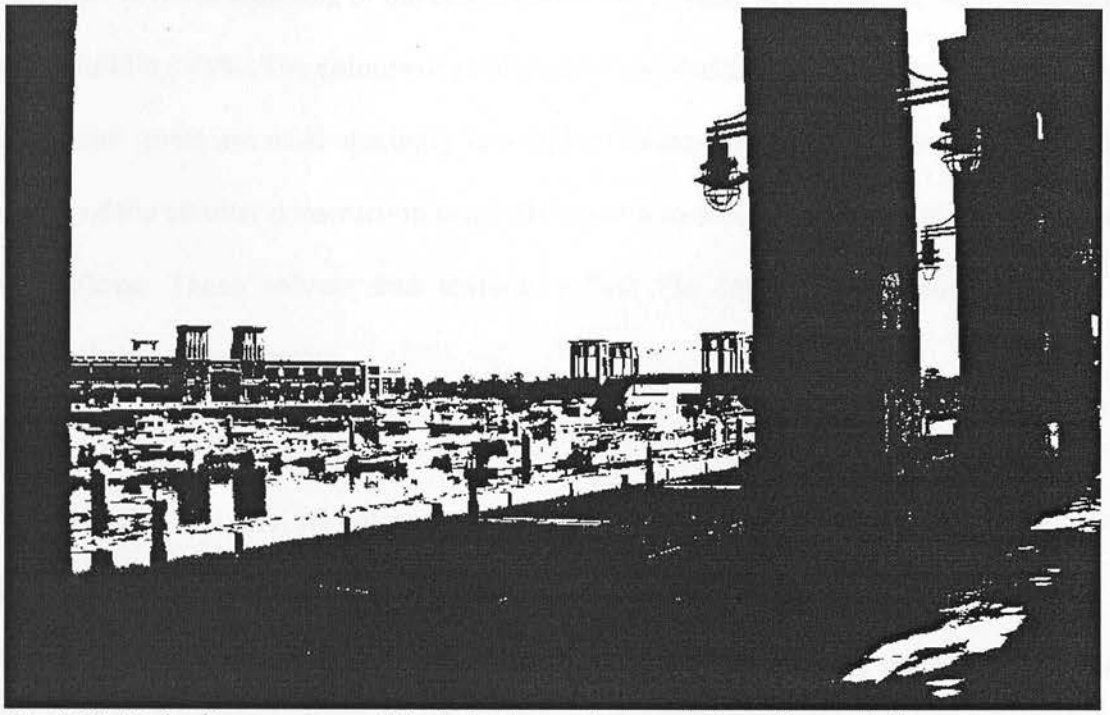


Fig. 7.20: Mushrabiya screens used (in the background) as aesthetic architectural elements

The courtyard is used inside the souq in an innovative way. It serves the souq in its spaciousness but is no longer open to the sky, in order to give protection against the dusty weather and the extremely hot sunshine in the summer. Clerestory windows are placed along the top to regulate the flow of wind inside the souq and also to admit natural lighting.

The tenth level is that of the surface quality and texture of the construction materials. The selection of the surfaces symbolises the innate human appreciation of the inherent nobility and richness of materials themselves, through configuration and adornment, or through the combined effects of several materials developing surface configurations.

The wholesale changes wrought on the Kuwaiti society after discovering oil had a great impact on people's taste, style and wishes. As a result, lots of modern building materials have been used

in construction, as mentioned in Chapter Two. Nonetheless, the construction of Souq Al-Sharq limits such materials and concentrates its attention on those that are most similar to the old building materials in form and texture. For example the small yellow mud bricks used in the construction are similar to the ones used to build the nearby Amir's Palace in the 1920s. The approach used in the assembling of the bricks unites the external texture of the souq to that of the traditional building style. The colours of sand yellow and white, the colours of the past, are used and brown and green are used sparingly to avoid an excessive monotony in the overall effect. The texture of the all over construction is mostly smooth to avoid the collection of dust and sand on the surfaces. These colours and textures reflect the colour preferences stated by the respondents in the questionnaire.

Marble is used in the interior flooring of the souq since it is seen to be of high quality, is easy to clean and is highly durable. Its colours are light and its smoothness and the fact that it absorbs very little ambient heat lends a sense of coolness to the place. The selection of materials that exhibit a noble nature is restricted mainly to surfaces that predominantly relate to nodal spaces and to the visitors' field of vision.

White gypsum is used for ceilings, with simple Islamic engravings that symbolise the conception and the traditional past of the society. These are applied without grandeur and exaggeration. Such touches generates vertical interest and movement and reinforce ordered lines of horizontal movement. This type of movement in Shooq Al-Sharq is used as an element of attraction, transforming otherwise empty spaces into areas that display art works.

The eleventh level is the water fountain. Water retains its great significance in Kuwaiti society. It once was scarce and hard to find either in wells or from the rainwater collected in the *birka* reservoirs or brought by wooden boats from Shatt Al-Arab from Iraq, as mentioned in Chapter One.

The author's childhood memories of rainfall in the old days are happy and exciting ones. In the

wet season, people would wander in the neighbourhoods singing beautiful rain songs. They would be happy and excited when their clothing became soaked from the rain. These memories are symbolised, as well as the recommendation that people who live in desert countries should never forget the extraordinary value of fresh water, in the water fountains located the southern elevation of Souq Al-Sharq. Here children gather and try to catch and hold the falling water without any expression of disapproval from their parents, as if they too have glimpsed the past and remembered when they were little and the older generation looked at them in glee while they played in the rain. This demonstrates how actions change into knowledge and experiences people live with through history, yet the manifestation of memory in symbolic architecture allows these thoughts to be inherited from one generation to another.

7.4 Conclusion to Part Four:

Human societies were formed regionally and spontaneously. They started with the formation of the housing unit that consisted of several elements and spaces that provided for its inhabitants' comfort and safety. It offered a refuge from the environmental, social and political elements that might impair the growth and desires of the family by shaping its traditions and beliefs or imposing a different lifestyle. As a consequence, in Islam a dwelling is a sacred and private domain that no one is allowed to violate under any circumstances. The house of Al-Bannai is an example that reflects a unique and a very special interest in preserving old traditions and life style, while making use of environmental elements. In its incorporation of modern architectural elements it also provides comfort, especially through the use of innovations like electricity, water and a sewage system.

The Al-Bannai house is adapted to provide a comfortable living for the family through dividing it to essential elements. Its first priority is in the elements regarding the daily activities of the family members and their movement, either vertically or horizontally.

The second element is the house guests, their need for spaces and movement that do not disturb the privacy of the household members while providing for all their entertainment needs, for hospitality is sacred in Kuwaiti society.

The third is the service elements that regard the servants, their quarters, movements and daily chores. Easy access was needed for them without disturbing other elements. These considerations show how the customs and traditions of Kuwait played a great part in the design.

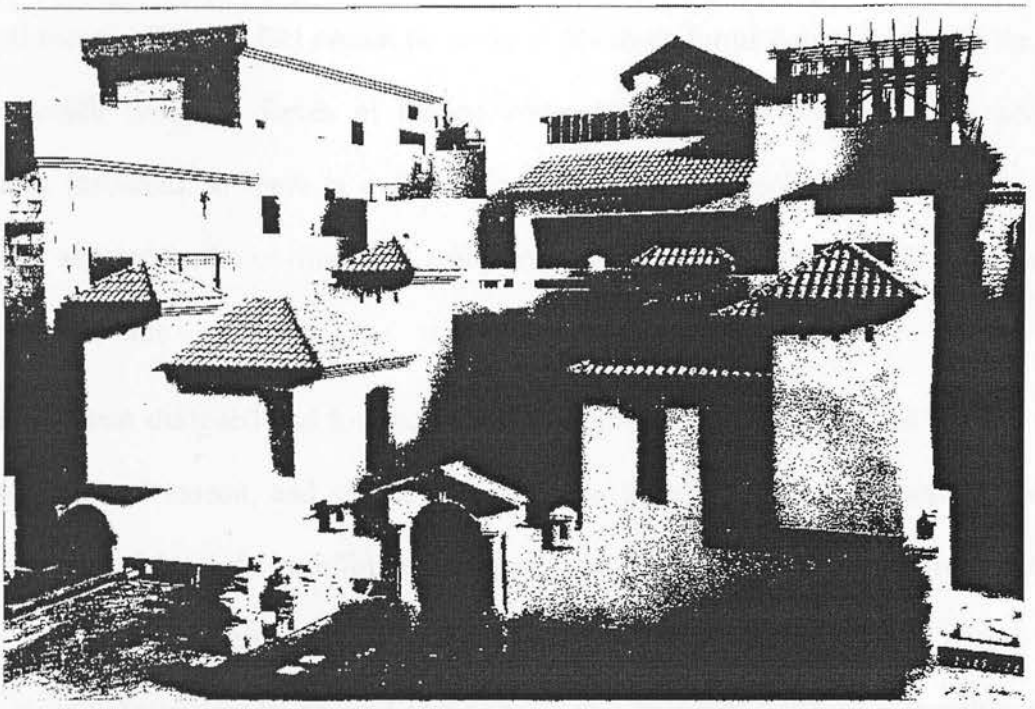


Fig. 7.21: View of Al-Bannai House

In the past houses were built on large plots of land. Providing spaces for the above-mentioned activities was easy. Nowadays it presents more of a challenge, and it takes a lot of effort and ingenuity to provide for old needs in the modern, smaller houses.

As for privacy it has been taken into consideration, for no opening that overlook the outside road or the neighbours territories without shielding for social and safely aspects. The front fencing was designed to be higher that the level of vision and to protect the privacy of the house, a socially inherited factor in the eastern societies.

The environment is also considered, most obviously in the open courtyard, and the *badgeers*,

vital constructional elements that have important environmental functions. As the *badgeers* are located on the top of the house where they function best to serve the needs of the house, they are also used as an aesthetic element. Many architects, however, include non-functional traditional elements in the design as purely aesthetic elements. This only serves to increase the total cost with only a tenuous justification. This criticism could be said of the use of fake *badgeers* in Souq Al-Sharq, using the traditional form to disguise machinery rather than as a response to the climate. It can be argued that, as they cover air-conditioning plants, they are retaining their historical meaning but the fact cannot be avoided that these forms do not transform the climate, do not benefit from the forces of the environment and are completely independent from indigenous resources. If there is a failure in the electricity supply, these elements that are apparently adapted to the environment will also cease to operate and conditions in the market will quickly become unbearable.

A water fountain designed and located in the courtyard of Al-Bannai House equally serves a climatic/functional reason, and similarly it has been transformed into an aesthetic object of beauty and peacefulness. In the effort to correlate the way of living with the environment, natural lighting was used as much as possible to minimise the use of electric lighting during the day, natural air is used in ventilation, and low cost, locally available building materials were used. These strategies also allowed the owner to afford a magnificent dwelling on a relatively low budget.

The many traditional architectural elements – the sunken courtyard, the *leewan*, the beautiful pillars, *mushrabiya* screens, the *badgeers*, the large entrance door and the roof – all play a role in the overall aesthetic character of the house. These elements are highly visible and coordinate the house mass, the size and total area of the land and the empty spaces into a composition that evokes the human scale. The openings harmonise with the pillars that over look the courtyard, and the style of the layout of the floor tiles and the interior reflected ceilings offer special

features to the house.

From here, one can understand why the housing unit in eastern societies is unique. It embeds a lot of important and spiritual elements inherited from one generation to another, with the consideration of modernisation and integration with other cultures.

At the souqs individuals also apply and practice their inherited morals and traditions. Daily one can witness transactions that depend upon the deep social and spiritual values of honesty, sincerity, patience, devotion to one's work, earning a living without belittling others or assailing others people's properties. Many shops are left unattended during prayer times, and goods and even jewellery is left displayed unguarded, for the places inside the souqs of Kuwait are known to be secure.

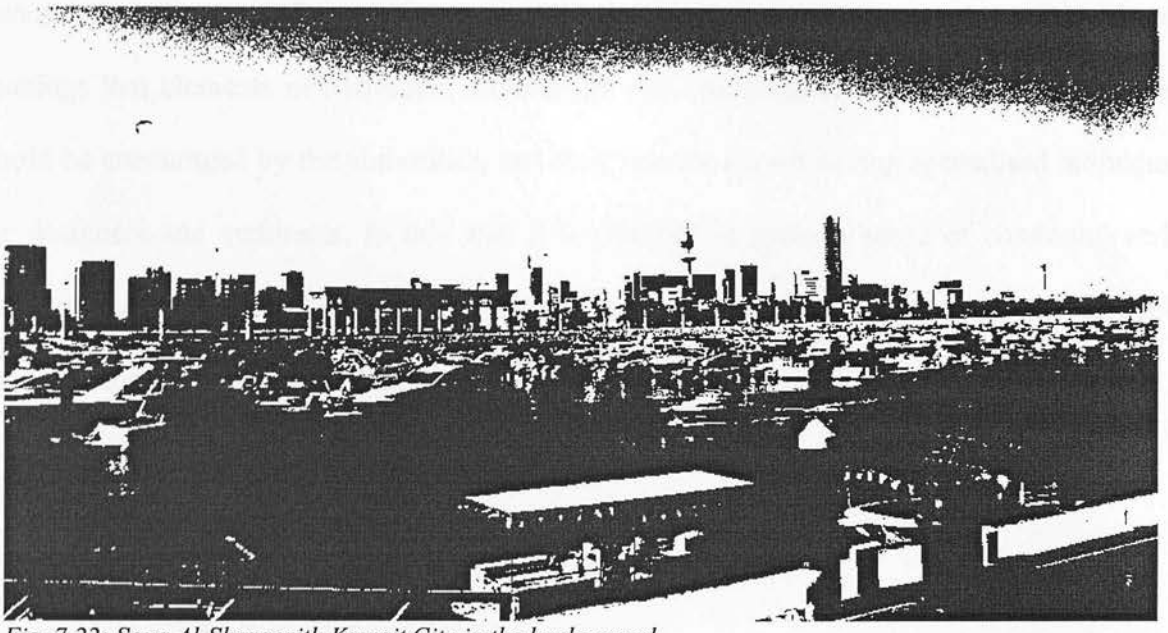


Fig. 7.22: Souq Al-Sharq with Kuwait City in the background

The souq plays an important social and economic role in Kuwait society today. As always, location is an important element in the success of the souqs. It is no accident that the highly prized land of the old city seafront was chosen as the location for Souq Al-Sharq. This choice indeed fulfils the deep needs of the shoppers to be attached to their past and their place. It occupies its location shrewdly, taking advantage of the sea to the north, installing the to the

south, using the calm microclimate to the east for leisure and sport activities and putting functions that cause smells to the west, in a port for old fishing boats were fresh fish is obtained daily. Souq Al-Sharq is considered to be an extension to Kuwait City's Al-Cornish Road known for its natural beauty.

From a traditional point of view, the souq gathers most of the elements of the old souqs, like the location by the sea, the variety of goods on offer like clothes, vegetables, meats, fish, handicrafts, long shaded passages, and outdoor cafés and places to sit and relax.

The two case studies, as explained and discussed from the point of view of the discourse, demonstrate a strong connection to their surrounding cultural and environmental contexts. These works symbolise the desire to preserve traditions, social customs, religious morals and economical aspects and they express this through the use of aesthetic aspects that evoke the meanings that elements of traditional architecture one communicated. Examples such as these should be encouraged by the authorities, and their lessons shared among specialised individuals like designers and architects. In this way it is possible to retain a sense of continuity and a heritage, and to make positive use of the environment as it exists translated into symbolic schema in the mind, yet in a modern way that suits the ambitions of a modern nation.

PART FIVE

CONCLUSION

PART FIVE

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATIONS

Chapter 8: Conclusion and Recommendations

8.1 Introduction

8.2 Review of the Thesis

8.3 Recommendations

8.4 Recommendations for Further Research

CONCLUSION AND RECOMMENDATION

8.1 Introduction:

The indigenous architecture of any country is the cultural image of the society. In other words, it is the visual history that is the outcome of the evolution of that society and its cultural viewpoints extended over a long period of time. Through many trials and experiences, from generation to generation and reflecting the foundations and backgrounds of the society, it developed a highly specialised set of social, economic, religious, cultural and political values and norms. This picture takes its shape starting with considering the single room, then the individual house, through the residential quarter, to the village, town and city. It is the indicator of the connection between the people and their surrounding environment. It is the mirror that reflects the civilisation that is existed over the ages, and the end product of the practical experiences of people in the course of transforming nature and its resources through mythology and symbolism for the welfare of the society. It could be said, that any small part of the indigenous building, small in size, place or function, has a philosophy and meaning.

The idea of this discourse was initiated in response to deep anxiety caused by the dramatic changes introduced in Kuwait, which the author has experienced. It could be said that, in physical terms, the world in which the author was born and brought up has vanished. Yet its ways of life, its symbols and its meanings persist within society, although these are no longer responded to by its built environment.

It was decided therefore that a confirmation of this concern should be introduced by reference to the people who themselves experienced and immersed their cultural values and references into

the built environment. The ways in which people's perception and deep meanings attach them to their environments and their environments in turn carry and perpetuate these patterns of knowledge and behaviour are proposed in this thesis as forces that must be considered as the main criteria for judging the appropriateness of design and planning solutions. The growing literature on man-environment transaction provides support to this approach.

An open-ended questionnaire was devised for this purpose. The findings of the discourse came out with a number of issues. The results of the survey confirmed that people held rather contradictory attitudes about their city. They showed also that among people involved in this survey there is quite a considerable uncertainty and ambiguity in terms of what the respondents liked and did not like in aspects of the urban environment.

The survey indicated a number of key factors, which should be addressed in association with any development programmes. The need to study these key factors in a way that reflected their relation to each other led to the particular research methodology and the direction of the thesis.

One alarming point from the results of survey in Kuwait was the weak sense of belonging that people expressed when they spoke about their reactions to Kuwait City as it now exists. They made a strong connection between this and the absence of reference to the past that exists in the present. The author interprets this not merely as an expression of dissatisfaction with but maybe even an alienation from the present. It was noticed that the interviewee's perception of the environment tended to be associated either with the past, which is represented by traditional figures or the future, which is presented by modern and western images while it would be difficult to assert that either was fully accepted. Meanwhile there is little that they feel attaches them to their present time – they exists between the two worlds, the past tugging in one direction, the future urging them towards another. At no time is there a feeling that life as it is has its own deep connections in time and space. The implication that people are experiencing a

kind of historical discontinuity or cultural disruption was confirmed by the fact that, at present, they are not getting what they expect their culture to offer them within the built environment.

The failure of the programme of modernisation is that, in spite of providing generous and welcome facilities, it spares little time for identifying or satisfying people's deep cultural needs. Innovations and many new physical qualities that it offers were considered by the study as an important indicator, appreciated for the sense of comfort that they bring but also felt to be lacking in more subjective qualities. It shows that it is not only important what is built but how people perceive it.

The author therefore set about compiling a discourse that took much of its ideas from the views expressed in human and environmental studies and sought to reintegrate the phenomena of the new built environment and of people's cultural needs. The intention was to benefit not only from the technologies of modernism but also from decades of experience gained by the traditional builders of Kuwait, in which the holistic connection to place and time was the central purpose of architecture.

8.2 Review of the Thesis:

The thesis sought to bring out the qualities of the built environment in a discourse in order to discover the core of its relationship to people's attitudes towards their built environment. It is a search to try to understand what it means to them, what they like and do not like of it, why they make these subjective decisions, how they perceive it as a unified image and how they deal with it. In other words, it is an attempt to identify man's perception and cognition of the built environment within the socio-cultural context. Therefore, one of the main goals of this discourse was to pay attention to the broader aspects of the environment, which were understood through people's involvement and direct responses to it as revealed through an open-ended questionnaire.

It became clear that people were able to decode and understand deeper meanings than those that are visually apparent, and that their interpretation and appreciation of the built environment depended on these highly culturally shaped factors than upon more physical and international criteria.

The research was an attempt of the discourse to link the environmental aesthetics to man's awareness of the principles behind aesthetic patterns and their manifestation in the environment generally and in architecture particularly. That was achieved, however by synthesising the evolution of some architectural patterns with their physical and socio-cultural implications. All these factors are responsible for environmental and architectural aesthetic quality, as they have determined its appearance. It can be argued also that the sought quality is the controller of the kind of urban pattern that suits people and their way of living, and takes into consideration their social relationship and cultural traditions. The urban pattern of a town can be seen as an enlarged image of the single living unit in the same manner as society is a magnified image of the family unit. However the study having fulfilled its initial aims of exploring peoples opinions and expectations of their environment, has made a significant move towards the study of economy and its implications of the built environment and its various systems.

In this regard it could be confirmed that nowadays, the disciplines of architecture and urban planning face many problems related to social changes in the society. People, particularly in developing countries, find that the proposed solutions rely mainly on mechanisation, which, in turn, only adds greater complication to their existing problems. It is a great pity that many architects and planners have found it sufficient for their work to follow and adhere to the international style of architecture and the modern ideology of planning, which ignores the role of indigenous solutions. This has made their designs depart from the identity of the individuals who inhabit them identity. The identity of that has resulted is evident in what we see today. The dominant type of buildings spread all over the world do no longer represent people as unique

groupings within unique environments, nor do they take into consideration culture, tradition and identity.

Generally, this discourse has briefly made reference to these problems and issues related to development and its effects on users and their built environment. Throughout, its emphasis has been placed on the perceptions of people that are celebrated in indigenous architecture and it has sought to present a way in which the indigenous solutions towards adapting to the environment might suggest improvements that suit the architecture of today. Certainly this is not a call to regress to the past, but to understand the structural processes and their principles of transformation and change as bases for cultural and architectural continuity of Kuwait which should guide future development and future designers.

The author interpreted the phenomenon of the city as an enlarged image of the single living unit in the same manner as society is a magnified image of the family unit. This point of view correlated with the cultural identification of the neighbourhood as a family and social space, rather than as a district containing a range of physical amenities. The main body of this thesis is divided into four main parts, as follows:

Part One Chapter One:

In Part One Chapter One the author talks about Kuwait's location and describes Kuwait as consisting of a main landmass and small islands. It lies on the Arabian Gulf and is bounded by the Republic of Iraq on the north and west and by the Kingdom of Saudi Arabia on the south.

Generally Kuwait has a desert climate, i.e. dry hot in summer and cold with little rain in winter. Dust storms are a feature of summer period and these can be very violent.

In response to the climatic conditions, the old Kuwaiti houses have features like narrow

openings, thick walls for insulation, roofs divided into private areas (so that it can be used as sleeping area during summer).

With its long coastline, Kuwait depended very much on the sea. This was where its people made their living through trade, shipbuilding and pearl-fishing. It was also their gateway to the world, from which they obtained many of their resources essential to life.

The mosque was one of the most prominent features of any quarter in the old city. A mosque was also a resting-place for a traveller or a poor man in need of shelter.

Kuwait brings together desert and sea environments. This local environment contributed to the development of architecture in Kuwait and gave it may special characters. For example, in old Kuwaiti construction, there was a courtyard with a well or fresh water cistern around which a house was built.

Kuwaiti's traditional markets, which were called Souqs, were integral to the old city. Here were the meeting places of merchants, men, women and the people of the desert.

Since there are no mountains in Kuwait and wood was also not available, the building materials for Kuwaitis were limited to mud, and certain coral rocks taken from the sea. The designs of the houses were simple and the height of the buildings was limited to a minimum of two storeys. Old Kuwaitis were skilled artisans. They included shipwrights, carpenters, blacksmiths, goldsmiths and cloak-makers.

The old architecture communicated a sense and identity, attachment to place, spiritual and social values and heritage. It was not a decorational element or passing fashion. It was a record of the society living in a certain environment with its accumulated experiences, experimentation in their context and gradual development towards its own architectural identity. This development was very extended in time, because the ability to import architectural elements or to assign

others from outside the society to undertake this task was very limited.

While the development of the local architecture requires great efforts and takes a long time, its loss and destruction was achieved in the short span of only a handful of decades. Sometimes this destruction of this environment was carried out through good intentions, since its aim was to remove the old structure, modernise the city, to introduce what was thought of as being new civilised elements and the provision of 'better' services to the citizens. When it comes to the government or the climate influences, social aspects or its economic structure and religion, however, the new architectural ideas arrived too rapidly to absorb and settle into the cultural that had already evolved and does not express these underlying and powerful forces. Kuwait City is therefore a good example of one that has undergone rapid economic development and the consequent civilisation and urban result has been the alienation of its people from their architectural environment.

Since the fortunes of the oil revenues began to pour in the country, forming the strong economic base for Kuwaiti society, it has been considered as necessary to distribute these fortunes among the citizens to promote the standards of living in this country. That was an honourable aim but the ways to achieve this aim were not set out clearly and there were many individual and common sacrifices when we look now at the past of 50 years. New buildings, new materials and new styles of building began to spring up everywhere. Some were successful and some were failures because they did not cooperate with the social and environmental context into which they arrived.

Part One Chapter Two:

This chapter establishes that language in primitive societies has a beautiful meaning. The Kuwaiti society, through its daily conduct and its simple crafts, especially the craft of building,

created a technical language that made the many components and measurements involved in its house construction very easy to identify and address. This simple language is very much connected to the people, the family units, the environment and to the materials used.

This language had its own internal integrity and clarity. When it comes to the way places were named, it made a range of connections between the physical phenomena of the environment and the human body. In other words, it symbolised the physical landscape in a way that gave it immediate connotations and values and translated it into a schema of human and social ideas. The names of colours are also shown to have derived from the names of fruits, vegetables and the environment symbolically representing values that the craftsmen and others were inspired by and followed. From this we learn that the true language is the one that is connected to that of the life of the individual, his daily life actions or his surrounding environment, and so it becomes alive and continues to be used by all individuals along the years.

Part Two Chapter Three:

Part Two, which comprised on only one chapter, presented the theoretical background of this research. In this chapter some philosophical and definitive meanings to societies and human actions are presented. It asks how the individual looks at the world around him, how this perception is shaped by his or her cultural knowledge, how it affects the structure of the society, and how this society blends with its long inherited culture.

Culture is the total, holistic schema of that knowledge, which is embedded in both the human mind and reflected in the environment through symbols, codes, rituals, etc. as well as their mutual interaction. Deriving ideas from the philosophical writings of thinkers such as Rapoport, Lincourt, Lang, Russel & Bullock and others, the author developed a viewpoint based on social meaning. Other writers such as Maslow contributed insights as to what motivates individuals to

live peacefully with the environment and embrace it, employ it to serve their daily needs and, ultimately, having gained their higher levels of health, creativity move towards self-fulfilment and self-actualisation. The chapter also investigates how cultures adapt to their environment and, in the process, generate and inherit social traditions and a culture that transforms the environment into a social and personal place.

The chapter ends by discussing how thinkers in Muslim societies crystallised these underlying forces of culture into manners and values that affected the architecture, the planning of cities, roads and buildings. Social norms were evolved that shaped behaviour on the principles of respecting the rights of others, forbidding any intrusion into another's property, and enshrining the sanctity of private possessions.

By applying this to Arab-Muslim societies to find the basis for planning the city district and the road, its width and use. Many codes were developed considering the privacy of people in general in urban spaces, as well as the privacy of living spaces in their own homes, places that nobody should be able to look into from the inside. The accuracy in dealing with this element reached its peak in considering the smallest details, such as the locations of doors, windows, the height of the walls and the tradition of building a parapet about the roof such that this could be used by the family without uncovering the house next door.

Part Three:

Part Three is devoted to a field survey, which took the form of an open-ended questionnaire distributed among residents of Kuwait City. The aim of this survey was to gather information directly from the people about their attitudes towards their environment and to allow the author to establish the claims of the research on the analysis of actual responses. The questions asked people to reflect on their preferences across a range of issues such as favourite buildings or most

appreciated aspects of modern life in the city, and then invited them to reflect on the reasons they made their decisions.

Part Three Chapter Four:

This chapter presents a review of the survey, results and the compiling of the responses collected in tables to show the number of times responses were repeated through out all the questions. Because these responses were mainly related to people's perceptions, subjective data, the methods of interpretation used by the author were more relevant to qualitative analysis than those usually used in qualitative research.

The bulk of this chapter is devoted to a Piling Analysis, in which all responses are taken at face value and their messages are given fuller context by the author's knowledge of the social and architectural background. Therefore, when they mention various areas of Kuwait City, a description is given of these places and the main factors that characterise them and illustrations are provided in order to guide the reader about the city. In order to give deeper insight into their experiences and attitudes the respondents were given the opportunity to include any further discussion to express their opinions about the city. The opinions that they raised also became part of the discussion of their answers under the piling analysis.

As the research examines people's perception of the environment, it sought further benefit from the use of cognitive mapping. Interviewees were asked to draw a sketch map of the city to show the main features, the preferred places and the most important buildings according to their opinions.

From the provided sketches it became possible to make a further analysis about how they structure the city as a unified image within their minds.

Part Three Chapter Five:

This stage of the analysis starts by classifying the information into three categories: objects, activities and adjectives. The idea of this classification was partly derived from relevant literature and partly based on methods and approaches provided by the PhD Programme under Dr Faozi Ujam. It aims to establish to what extent people, in their answers, reveal that they perceive their living world through its objects, through the things they do within it or through its meanings.

The findings were overwhelmingly that, although the respondents made references to some objects and a range of activities, their interpretation of Kuwait City is to a large extent based on adjectives – the meanings that its buildings and spaces hold for them. This finding contributes much to the author's previous statements, derived from literature and background studies, that the architectural environment is significant because of its deep meanings and that it is these that buildings should seek to convey.

The study gained further and deeper information about the constructions that people make of their environment by correlating certain responses to each other by the use of a correlation method. This looks for shared patterns between the answers to two very different questions, in the understanding that if the responses to two questions share a pattern of preferences as stated by the same people, then these reveal a further level of knowledge that cannot be elicited from one question.

Part Three Chapter Six Dimensions:

Dimensions can be defined as the motivating forces behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory. These motives also are divided into two types, external and internal. External motives consist of

various elements such as climate, construction materials and site topography, whereas the internal motives include the social needs of interaction and participation. Every building, every emotion, every action will be a result of a number of these underlying requirements.

The final stage of the analysis was the search for the dominant dimensions shared by society as revealed in the respondents' answers. Dimensions were proposed by the author and a statistical re-evaluation of the answers, putting them into the categories suggested, is used to study which motivating forces stand behind people's responses. These dimensions are understood to be representations of people's deep values and beliefs and therefore as essential in their preferences for actions, behaviours and architectural phenomena.

Part Three, Overall Findings:

Generally, the results of this work have confirmed several salient points: first of all they assessed the importance of economy in our life. The study has found that many social and cultural interpretations were part of a process of the way people stored and internally represented the significance and forms of their city in their daily life. Considering perception being holistic, the discourse argues that a strong structural link exists between this significance and the architectural and environmental aesthetics of the city.

Chapter Six concluded by drawing the findings of the thesis thus far into a discourse on indigenous architecture in Kuwait. It was presented as a range of questions that the researcher might ask of any building that needs to be evaluated in light of the intentions of this thesis.

Part Four:

This part consists of a Case Study of two projects that were chosen, one being the private realm of the house, the other being the public realm of the souq. Both projects display the intention to

reintegrate modern demands and ways of living with a traditional Kuwaiti architectural culture. These projects were introduced and discussed from an architectural point of view, connecting each to its surrounding environmental and social context. The author also discussed how they meet their requirements of their users and how these works symbolise the choice to preserve traditions, social customs, religious morals and economical aspects as well as aesthetic aspects.

The purpose of the case study was to demonstrate the application of the discourse in two real situations. This discourse generally shows that Kuwaiti society, in terms of its environmental development, has passed from indigenous development, through an exceedingly brief transitional period, to being a fully-modernised state within the global economy. During this time, economic development, internal and external changes, and the adoption of globalisation have acted as determining forces powering the development of the environment. In order for decision-makers to justify the colossal changes that they have made, they have developed the idea that the Kuwaiti culture and religion were responsible for the country's retardation. Allied to this was the development of a feeling of lagging behind the industrialised world and wanting not to be overtaken by it. Their solution was to look to the west as the best model for progress and development.

All subsequent development programmes were ones of westernisation, urbanisation and modernisation, which were dismissive of the Kuwaiti culture and its role in the development of the country. Attitudes moved from those in which society is involved in relativistic decision-making to an era of standardisation and centralised authority. Central governments introduce strict measures to control urban development and, as a result design and planning education and implementation policies, have lost their traditional source of inspiration and energy, which had always been the family and the neighbourhood, and fallen instead under government control. The increase in the price of oil, and therefore increased spending power and the excessive passion of governments for rapid modernisation have led to further the ignorance of the

social and cultural needs of the country and of the people's role in these developments programmed.

The situation in Kuwait now is one of an assessment of this process, of people, politics and professional – questioning, of uncertainty and confusion, somehow held with inherited systems and structures. Urban planning has a vital role to play in this assessment and in the development of a sustainable new approach.

8.3 Recommendations

Kuwaiti society is eager for development. This research does not wish to deny these genuine desires. Development is demanded by everyone, and although people regard the past with nostalgia, they recognise it has gone. The author does recognise, however, that the current situation meanwhile falls far short of their expectations and they are uncertain about the best direction for the future, all which makes the present untenable.

The discourse, however, was the product of research that found that matters of perception, cognition and symbolism, not matters of independent 'things', which is a trait of modern societies, are the most important forces in the built environment. Even in its physical forms, the environment is seen to be a process in which all these factors are involved.

The importance of symbolism has become an increasing theme throughout the thesis. The academic study of symbols typically concentrates on symbols of kingship, religion, bureaucracy and finance. It tends to build its research from the point of view of art, aesthetics and culture, and related to emotions and a subjective attitudes to external objects and their associated canons. But the processes of symbolisation and people's need for symbols have been less regarded, and the idea that symbolisation is critically related to everyday life has been largely ignored.

Symbolisation, it is argued in this thesis, is a process of giving meaning to things and perceiving those meanings. Symbol are the embodiment of what is important in everyday life, they form a communication system which is the basis of sustainability. Appropriate symbolisation therefore is vital to the continuance of any culture.

The proper attitude to the environment is one that allows for this appropriate symbolisation and the process of its evolution. The objective of this thesis is to say that a successful environment is one which allows and supports the continuance and evolution of a sustained symbolisation process which is meaningful and gives a sense of belonging, security, potential, and self-realisation to the people. Such intelligible environments create the stable opportunity within which there is minimum contradiction between people and their environment, People and the environment are the one rather than two, so that the environment becomes a part of the process of evolutionary development of the whole society. The integrated environment can be given the analogy of a book which people not only read but of which they are also the writers, thus the reader/writers shape themselves, the environment and the culture for future generations.

This means that the environment will not be regarded as a commodity to be used and destroyed when it is not needed. The environment then is a part of a living learning system, which makes people aware about themselves and their resources, their values and their identity. An environment appropriately symbolised would be a considerably more sustainable environment than is possible under the present circumstances because sustainability can not be achieved without an innate and deep sense of belonging that is nurtured through symbolisation. Symbolisation is therefore a very practical and efficient way through which the realisation of a cultural/economy approach to environment development can be achieved. To achieve these ideas and theories further research is required.

Although this thesis started with the background of the country and its cultural heritage the

author made an essentially empirical research exercise examining the people in Kuwait, terms of their perception and the way they interpret their surroundings. The same methodology, however, was not continued into the examination of the problem itself, which required a qualitative approach. One reason for this was that, even if the interview technique had allowed for a historical and theoretical discussion, the Kuwaiti today has no detailed experience of involvement in environmental development issues and so could not have given all the information needed to explain the problem. A second reason was the author believed in the value of a contextual way of examining environment phenomenon. In other words the intention was not to find out only what the problem is, but also how to solve the problem, and to look for clues as to how it might be solved in a discourse way.

What the discourse contributes in the first place is the perception and appreciation of that which is invisible and which is responsible for the extent to which all parts of the city can be construed in a glance. This embraces the long history of evolution and processes of change of the city has accommodated in its experience. A narrowness of a street for example is more than its geometrical attributes. It is the provision of a domain that accommodates elaborate and accurate environmental, social and cultural interpretations, which are loaded with meaning and symbolism. This is expressed in attaching or providing streets in the example with a variety of purposes and names, which are facilitated by their organic geometry and their integration with the totality of city structure.

So streets carry with them multiple meanings associated with the various purposes that they serve such as being markets, play grounds, places for rituals and ceremonies, for worship, for exchange of visits and social interaction and the likes. Their shades and shadows convey messages for people such as their association with peace and tranquillity, power and manhood and the sense of togetherness. The geometry therefore extends its meaning to embody more than what one is capable of understanding in physical terms. Such geometry nowadays is reduced

to its basic physical meaning, because it became detached, isolated and dissociated and finally car became the main subject.

Similarly, houses of Kuwait according to the thesis are now perceived to be more than masses or even places to live in. One cannot dismiss the strong aesthetic and symbolic if not sentimental impact of the variety of their brilliant colours such as white, peach and the sand colours, which are very close to earth. All colours suggest man's attachment to nature, an attachment that is recognised by the architecture of the city, its streets, houses and walls. This is what people have been experiencing for some long time in their native city. The imported materials and technology, blunt geometry and absence of symbolism of the current architecture do not create a viable and rich alternative to the indigenous methods for living within the Kuwaiti environment.

The out come of this discourse could be seen as such. Certainly there is some value in retrieving the deep sentiments that once tied us physically and spiritually to our city and cultures. The method, which the study has arrived at perhaps not intentionally but during the development of the discourse, is based on diachronical perception or investigation.

The author does not suggest that, in order for people to construct their innate perception of their environment, they should study diachronic perception. The suggestion here is that it is the duty of architects and planners to create the opportunities for them to increase their cultural awareness through their interactions with their built environments. This is not to say they should read about their culture and its traditions, but be allowed to live their culture and maintain is continuity. This cultural awareness can only be accomplished by educating designers, architects, planners and finally policy-makers such that they understand the roles of symbols and meanings in architecture. These professionals should be guided in looking at every element in the built environment not only with its physical characteristics in mind but by being keenly aware of its relationship with the whole and with the culture.

Nothing can have meaning in the environment, as a whole, unless it is seen in the context of the whole. The meaning of the part will be completely different when it acts as an ingredient of the whole from when it is isolated. Separated, independent parts are meaningless.

With policy-making system and an early effort needs to be made to address the policies and decision making system based on a rational world view. The following examples give an indication of the means by which a new approach might be introduced:

In Kuwait the definition of architectural design and development is seen merely as physical change and the opportunity to experiment with the use of more advanced technologies and mechanical facilities in buildings and cities. Because the present definition of design development is not based on indigenous process as has been established in this research, the concept of architectural development should be redefined to incorporate it at the very root. There is basic need to revise this definition in a way to include the improvement of people and culture and environment all together. The intention here is to have a comprehensive understanding of environment taking in account the broader and more rational dimension of culture and its various implications.

Traditional methods of managing the neighbourhoods or quarters of Kuwait city should be re-examined to see how they might be relevant to the present situation. Responsibility for this could then move partly away from the municipality to the people themselves. The target should be the achievement of unity of the city, which has been destroyed for decades.

An important action would be the revival of the concept of 'Al-Fireej', the neighbourhood quarter. This could be done receiving help from people themselves in terms of recognition of the boundaries of each fireej, establishing is as a territorial community unit established through bottom-up participation of the users.

All concepts in Islamic architecture develop from and enshrine the right of the individual to exist in his or her private domestic space untroubled by interference from outside, on the condition that his or her actions cause no harm to neighbours. The municipality should begin to change its basic practical policies, from a centralised, top-down political system to a system of mutual responsibility between state and people to make opportunity/space for symbolic systems to work. The buildings, which are built by government and the large organisations, should lead the way in following the cultural and local attributes.

Symbolism of the phenomena of the environment in the built environment is the implementation of the society's worldview in organising that environment. This is an inevitable process, which creates an opportunity to read a culture and also to enrich it. The developments of symbolisation system are therefore directly influenced by a culture and also directly shape it. It is one of the most active and dynamic informing processes available to planners and designers. When people build their environments they symbolically show who they are or who they would like to be. Shaping the environment is shaping the self and identity. They should be allowed to realise this in their daily lives, for this is the process of self-actualisation that is the highest of motivations.

Culture needs to be practised in order to evolve. People also need to practice their culture. Both of these need an integrated environment to make this possible.

As the environment has a major role in terms of presenting, sustaining and carrying the culture, then encoding it with wrong or irrelevant information will make the new generation confused about their culture and their identity. It can also leave them with no sense of belonging and no responsibility for culture or environment.

Successful Architect and design is ensuring the flow of the local cultural meanings within the society and through time.

Meaning and naming objects, elements using local language is a necessity in local architect and design and where it is possible new terms should be suggested for new functions, spaces, and so on. This might be on a national or very local scale. It is also possible to associate new concepts with these kinds of expressions and words. These functions should be named expressed by using Arabic language properly.

Local symbols and their associations should be studied, recorded, and continuously examined.

Education is one of the key tools, which could change the attitudes of the people, decision-makers and planners and architects.

Education should be about awareness of the environment and the role of people in their environment. It should start from primary level to show the children the moderate nature of the environment.

People should be encouraged to get involved with the environment from the beginning. They have to know how to communicate with the decision-makers, planners, designers and architects. They also should encourage taking responsibility for their own decisions and their consequences not only on themselves but the others.

Using new technologies within the built environment should be encouraged if appropriate, but should be introduced carefully to allow people to clearly understand and symbolise it.

There should be continued research on physical elements and the effects on the environment is perceived, the level of communication between people and built environment developments and perceived state of the society.

If the built environment is imposed on a society, particularly when people are excluded, there is no opportunity for indigenous though to grow and develop. This will be a huge danger for a

sustainable life for a society. Therefore, building and developing the environment should be seen as an important stage of development of 'thought' and the ability to make proper decision in a society.

Ignorance of social life when developing the built environment will be a waste of resources. This ignorance can lead to both disturbing the social life and misusing the environment, in which people lost their comfort of living.

8.4 Recommendations for Further Research

This approach requires a lot of further research across many dimensions and subjects. The following are a few areas of research of relating primarily to symbolisation and people's participation.

A similar exercise should be carried out using the same techniques among the policy-makers, planners, and architect designers in Kuwait to see whether they make the same associations between physical environment and objective cultural issues. The result would have a significant influence on environmental research at least in Kuwait region.

All the key elements in the environment such as house, city, green space, street, quarter, neighbour, and so on should be examined to see what is associated with them. It is also important to research about how they are associated with each other.

Investigation and experimentation is needed into how the features, configurations, shapes, forms and patterns which can be identified locally as being Kuwaiti and belonging to Arab Islamic region might gradually be used to modify global architectural patterns such as those that abound in Kuwait City. In any urban developments such as planning and architecture design the appropriateness of these attributes should be studied.

Research is needed into the legibility and relevance of indigenous and introduced symbols in different designs.

Further research should be carried out into the influence of foreign words and expressions on people's perception of the environment and any relation to dissociation from their own surroundings.

A cross-cultural study about the evolution of the phenomenon of the dwelling over history and in different regions should be encouraged. This should seek to explore how the concept of the house has been symbolised and this symbolism crystallised in its connotations latent within different languages. A semantic study about house should be both objective and subjective.

The relationship between levels of sense of belonging and feeling of responsibility cannot be underestimated, for it is a powerful force in human lives. For instance, if the state manages everything, this situation will diminish people sense of belonging to their place and the levels of responsibility they are ready to take for it.

SOURCES

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Chapter 2: Language and Elements of Traditional Kuwait

Chapter 5: Further Analysis

Chapter 6: Dimensions

Chapter 7: Case Studies

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